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INVENTIONS AND PATENTS

BY
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AUTHOR OF "EXPERIMENTAL WIRELESS STATIONS," ETC.

[*The constitutional provision.* — The Congress shall have power . . . to promote the progress of Science and Useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.]



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To
My Father and Mother

PREFACE

THIS volume is intended particularly for all persons interested in patents, either as inventors, investors, or manufacturers. It is intended that the layman also will find considerable matter of interest.

There is a general ignorance of the points involved in patent procedure and the possibilities in patented inventions, even on the part of patentees. In fact the author believes that the patent system is misunderstood or at least incompletely understood by the very persons who are the most vitally concerned. This has resulted in an enormous waste. People have spent time and money on unpatentable ideas, patented valueless inventions, invested money in worthless patents, and have otherwise wasted time and money in ill-chosen and unwise attempts to benefit under the patent laws. On the other hand, hundreds of people neglect to take advantage of the opportunities offered by the patent statutes and fail to carry out and patent many valuable inventions. Even manufacturers have neglected to secure the benefits of patented machinery and processes in a number of cases and have failed to take advantage of the great possibilities.

The modern inventor is, for the most part, neither a nonentity nor a crank, and his inventions are far from absurd or useless. In many instances he is technically trained and in most cases well educated. He makes mistakes and fails in many cases to be sure, but when everything is considered the percentage of failures from the commercial point of view is not greater than in any other commercial pursuit. Many patents are un-

wisely applied for and taken out, of course, and a large part of all that are allowed never repay the patentee for the time and money required, but **invention** continues in spite of failure and each effort aids in the inevitable accomplishment of perfected results. The inventor stands in a class which is perhaps higher than any other class to which any human beings belong. Invention requires a faculty which is more than a mere result of education, a complex faculty which requires the best efforts of the human mind. The inventor creates something which has never existed before, and imparts an increased value to the material wealth of the earth, so to speak. What pursuit could be higher?

The investor and manufacturer should be vitally concerned in aiding in the development of inventions. There is no property which is capable of such opportunities, such possibilities, such values, or such chances for commercial success. The increment on a patent with valuable protected subject matter is enormous and far exceeds the increment on real estate, stocks, or the other properties which concern the average investor so absorbingly. There is no greater field of investment than that open to the investor in the matter of meritorious patent rights.

The manufacturer must also adjust his business to include patent rights. Few manufacturers are even aware of the need of patents to their lasting success. Patents are by their very nature his strongest weapon, both for offense and defense. Indeed patents go hand in hand with trade success.

It is a further purpose of this book to point out these opportunities, to show the steps necessary and the mistakes to be avoided. It is not intended that this book should make the inventor his own attorney. The law points given are intended rather to give patentees

an understanding of their rights. The very questions involved are complex. Is it patentable? What is the patent for? Will it pay? What do the claims mean? What is infringement? Can the patent be sold for profit? All these and other questions hazard the patentee and his backers at the outset. It is a purpose of this book to aid in their solution.

The subject is explained in everyday terms. The matter is suggestive rather than dictative. There are no set rules to be applied in every case. Invention takes its own course.

The matter is not exhaustive. The subject is too comprehensive to allow of such treatment. The information given will be found reasonably complete and all that is necessary in most cases. The viewpoint is optimistic throughout and considers the interests of all concerned. The author realizes that a work of this kind is open to criticism and is well aware of imperfections. This book is the result of a close study of the subjects involved and embraces the experiences of many inventors and patentees. Many items from government publications, periodicals, and other sources have been included. As far as is known at the present time it contains much information which is not to be found elsewhere. It is not in any sense a law book, nor is it a mere compilation of things to invent. The idea has been to provide a text and reference book for all persons interested in patents. The author will be pleased to receive suggestions and kindly criticisms. It is only in this manner that the scope and value of the work can be increased and perfected. The author cannot, however, attempt to answer additional questions, give additional advice, or even agree to answer all private inquiries, since his time is all taken up with other matters.

In short, the author desires this book to be an inven-

tors' book, a book for all inventors from the scientist and commercial inventor to the struggling employee with the "right idea." The chapters on invention and the present issues involved in patent matters have been written to further this object. He wants you to feel that it is your book and has written it specially for you. If you receive more than the mere intrinsic value of the book and desire to show your appreciation, you can do so by telling others. No author is insensible to appreciation.

I ask you to read, that you may know
What and where and how to go.

PHILIP E. EDELMAN.

MINNEAPOLIS, MINNESOTA.

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INVENTIONS AND PATENTS

CHAPTER I

THE DEVELOPMENT OF THE PATENT SYSTEM

AWAY back in the middle ages and even earlier, there were men and groups of men who in the modern sense of the word would be classified as inventors. There was the man who first found that fire could be generated by friction, the man who first found that a tree trunk hollowed out would serve as a boat, and the man who then found that wind power could be utilized to propel such a contrivance. The early men were prompted by the same motives as are the modern inventors. The early devices filled a demand, satisfied a want, or created a new utility. Man found it necessary to defend himself from the wild beasts, and finding his own hands insufficient he created weapons. In fact, some of the early weapons and instruments of warfare were inventions of a high order. Considering the time at which they were devised many of these were truly wonderful. The battering rams, the crossbows, and even the spears and slungshots required great ingenuity for their creation. So we see that ever since creation, man, even though uncivilized, has been of necessity an inventor. The joy of creation is a fundamental trait of every human being since the very beginning of things. Even to this day it manifests itself in every child more or less — in the child's play. Like every other natural trait, this trait is stunted or enhanced more or less in each case.

As people became more civilized and numerous, the

need for new and more varied necessities brought out a separate class of men who devoted their lives to such work. It was this class of men who undertook such projects as the building of ships, roads, castles, and the other early feats of engineering. There grew up a class of men who originated and studied the sciences of astronomy, alchemy, and even early physics. In still later years a great class of craftsmen grew up. This class undertook and carried on the work of transforming the various raw products into wearing apparel, utensils, and various other necessities. As the years rolled on this class continued to flourish. It was only natural that in thus devoting their lives to a single industry the workers learned of many kinks and short cuts in their work. Processes were undoubtedly evolved and very naturally kept secret as long as possible. The father would keep his particular secret all his life and then pass it on to the next generation. This method was practiced for years and years, and is still in use in a modified way in certain cases even to-day.

But secrets, as is well known, are very elusive things. Undoubtedly, many of these early secrets were stolen and copied by rivals. Disputes and quarrels would naturally follow. Such troubles were very likely the germs which led to the beginnings of the patent system.

The granting of patents began at a very early date. Patents were granted to various individuals and guilds, giving them the complete monopoly of certain commodities. This method was greatly abused in England, especially during the reigns of Elizabeth and James. During those years it came to be a favorite means for replenishing the royal exchequer. Patents were granted freely giving monopolies on entire classes of commodities. Certain companies were given the exclusive right to manufacture and sell a certain class of necessities.

Such favoritism led to great abuses. The people were forced to pay unwarranted prices. Practically no one commodity escaped from monopoly in this manner. The people objected strongly to these methods and clamored so loudly that in the year 1623 the statutes against monopolies were enacted. This put an end to the abuse. The whole affair extending over so many years had one bad effect. The people had been burdened so heavily with the illegal monopolies that the experience left a hostile feeling against all monopoly whether it was legal or not. Indeed this hostile feeling may be said to exist even to this day in some degree.

The terms legal and illegal monopoly should be clearly understood. It is regarded as strictly legal when a monopoly is granted to an inventor to enjoy the exclusive right to his invention. The illegal monopolies, on the other hand, are those which were granted to restrict trade, particularly in common commodities. Those patents, which were granted, giving such monopolies of the necessities of life were certainly illegal and worked a great hardship on the people. It is little wonder that the patents which followed should be regarded with suspicion and distrust even though they were legal in their nature.

Patents did not take on their present meaning until the early part of the nineteenth century. In the colonial days in America a few patents were issued to individuals by the colonial governments. Perhaps the earliest patent that was granted in this country was the one issued to Samuel Winslow in 1641, by the General Court of Massachusetts Bay Colony. It was a patent for a process of manufacturing salt and was issued for a term of ten years. The patent was issued conditionally and required that a works should be established within one year. Whether the plant was ever constructed or whether the patent was ever utilized com-

mercially is not definitely known and is unimportant. Five years later the same colony issued another patent for "The sole privilege of manufacturing salt, after his particular method," to John Winthrop. The term of this patent was to be for twenty years. Several other patents were issued in the following years, principally by the colonies of Massachusetts, Connecticut, and Pennsylvania. Apparently a patent granted in this way was only good in the colony which made the grant.

Patents were not regarded as of much importance during the colonial days, and when the colonies asserted their independence and the Articles of Confederation were drawn up, no provision was made for patents or patent laws. Patents were still issued independently by the several states as had been done by the colonies previously. If an inventor desired protection for his invention in all the states, it was necessary to make separate applications in each state. One inventor, James Rumsey, invented a new type of boat and in the year 1785 obtained patents for his invention from the states of Maryland, Virginia, New York, and Pennsylvania. In connection with this particular invention, it is of interest to know that this invention was disputed by John Fitch in what was probably the earliest "priority contest." Among the records of the case is an indorsement by so famous a person as George Washington.

The document follows:

"I have seen the model of Mr. Rumsey's boat, constructed to work against stream, examined the powers upon which it acts, been eye-witness to an actual experiment in running water of some rapidity, and give it as my opinion (although I had little faith before) that he has discovered the art of working boats by mechanism and small manual assistance against rapid currents;

that this discovery is of vast importance, may be of greatest usefulness in our inland navigation; and if it succeeds, of which I have no doubt, that the value of it is greatly enhanced by the simplicity of the works, which, when seen and explained, may be executed by the most common mechanic.

" Given under my hand at the town of Bath, County of Berkely, in the State of Virginia, this 7th of September, 1784.

" George Washington."*

When the Constitution was drawn up it seems to have been decided unanimously that protection should be afforded to authors and inventors. Under article one, section 8, item 8, it says:

" The Congress shall have power . . . to promote the progress of science and the useful arts by securing to authors and inventors the exclusive right to their respective writings and discoveries."

Based upon this provision the first patent laws were passed in the year 1790. Under this act a patent was issued for " Any useful art, manufacture, engine, machine, or device, or any improvement therein not before known or used." The applications under this act had to be made to a board consisting of the Secretary of State, the Secretary of War, and the Attorney General. The concurrence of any two of these members was sufficient for the issuance. The term which the patent should run was agreed upon and was not to exceed fourteen years. The fee charged was only a small amount. The act provided for the punishment of infringement and gave equal advantages to foreign as well as American citizens. The first inventor to receive a patent under this act was Samuel Hopkins of Vermont.

* President Washington instigated the first statutes (1790) by a message to Congress. The early patents only required a small fee — less than \$5.00 in most cases.

This patent was dated July 31, 1790. The invention was for a method of making pot and pearl ashes. In those early days the granting of a patent was a state occasion. The first patent bore the famous signatures of George Washington, the President; Thomas Jefferson, the Secretary of State; and Edmund Randolph, the Attorney General. The first few patents were all signed by the President of the United States. The grant was usually in folio size and was embossed on vellum. Each grant bore the great seal of the United States. Only three patents were issued during the year 1790, the other two being issued to J. S. Sampson and O. Evans, respectively. Only fifty-five patents in all were issued under this act.

As the list of inventions grew this act became inadequate. In the year 1793 a law was passed, repealing that of 1790. Under this act grants were restricted to citizens of the United States. Applications which had been issued by the states before the Constitution was drawn up were surrendered. All applications were now made to the Secretary of State. Conflicting applications were decided by a board of three arbitrators. Another important feature was the power given to the District Court to declare fraudulent grants void upon due proof. In 1794 and 1800 additional laws were passed as supplements to the act of 1793. The last addition gave privileges to aliens, provided that the said aliens had resided in the United States for two years. In the early days, just mentioned, the public and the courts were hostile towards patent grants. It was the old feeling against monopoly which was first aroused in England. The advantages of the system were but little understood, and patents were looked on with suspicion. This feeling was particularly acute during the administration of Jefferson, when all applications

were strictly censored. It was thought that the granting of patents might encourage private monopolies and lead to the conditions which had been experienced in England. When a case involving patent rights did come into court, the inventor was generally the loser. As a result the old practice of keeping the invention secret came into some use again. Yet, in the face of such discouragement, the list of inventions continued to grow and in 1802 a Superintendent of Patents was appointed to aid the Executive Department in taking proper care of this department.

In 1836* Congress passed a new statute, repealing all the previous acts. This year marks the actual beginning of our present patent system. A few of the old features were retained. One of the most radical changes was the creation of the Patent Office, with a Commissioner of Patents at its head. This new department was attached to the Department of State at that time, but it now belongs to the Department of the Interior. The most important feature was the provision for preliminary examiners and the establishment of a searching system. The search system consists of the examination of previous patents to see if the application is really new, and still forms one of the chief features of the present system. Under this statute there was a board of appeal which heard appeals from the decisions of the examiners and the Commissioner. Rights were again extended to aliens provided that they were residents in the United States at least one year and had declared their intention of becoming citizens. A standard fee of \$30 was charged for all citizens and resident aliens. Subjects of Great Britain for some reason or other were given a special high rate. They had to pay \$500. The subjects of all other nations were only charged \$300.

* The Patent Office was destroyed by fire in 1836.

Caveats and reissues were also provided for. An extension of seven years after the expiration of the original fourteen-year term was provided. The power to extend a patent was placed in the hands of a board consisting of the Commissioner of Patents, the Secretary of State, and the Solicitor of the Treasury. The U. S. Circuit Courts were given the jurisdiction for patent cases. In the following years several minor amendments were made. A law passed in 1842 made provisions for design patents. The term of these last was to be only seven years.

The immediate effect of the laws of 1836-1842 was to greatly stimulate the interest in patents. The first Commissioner of Patents was Henry L. Ellsworth and he undoubtedly did much to put the Office on a practical basis. The present series of patents started in 1836, number 1 being issued to John Ruggles in July of that year for a locomotive. No attention was paid by the Office to the patents which had been issued before, in the numbering of the patents. The total number issued under the old acts was only 9902. These early patents are listed in the first volume of the Patent Office Gazette, and the quaint specifications and drawings of those issued after the year 1836 may be of interest to some of the readers. Copies of the first volumes of the Gazette may still be found in some of the larger Public Libraries.

In 1861 the term was extended from fourteen to seventeen years, and the discrimination between United States citizens and foreigners was abandoned. A uniform schedule of fees was adopted. A Board of Examiners was provided. This board was intermediate between the regular examiners and the Commissioner. At about this time the southern states seceded and the great Civil War ensued. If this war had ended other

than it did, among other more important things a great tangle of the patent system would have resulted. As it was, the Confederacy established a patent office similar to ours and actually issued a number of patents, at least one hundred and forty-nine.

After the war a renewed period of activity ensued and in 1870 the entire system was revised and codified. The acts which followed only made minor changes and amendments and have to do more with the details of the system.* The law relating to caveats was repealed by the act of July 1, 1910, and inventors no longer receive this doubtful protection.

It is interesting to note the increase in the number of inventions during the several periods. During the period of 1790-1836 (July) the total number of patents issued was only 9957. This means that during the entire forty-six years of this period a net average of about 216 patents were issued each year. Of course, the most of these were issued in the latter part of the period. From 1836 to 1850 a total of 6980 were issued. So, during this short period of fourteen years, the number issued each year was more than doubled, making a net average of 498 a year. Aside from the surprising number of patents granted during these years, some of these patents covered a number of very important inventions. In the year 1850 alone 889 patents were issued. From this time on, particularly after the Civil War, the modern era of invention began. The number of patents issued increased with great rapidity, until in 1893, just forty-three years later, patent number 500,000 was issued. This period was marked with great inventive activity. A number of the modern wonders of invention came into existence during those years. The

* 1871, 1887, 1897, 1898, 1899, 1902. The Patent Office was partially destroyed by fire in 1877.

people of this period were astonished at the progress and some even went so far as to say that there was nothing left to invent. But many of those have lived to see the fallacy of their predictions. From the year 1893 patents were received at the Patent Office with still greater rapidity, until in 1906 a great total of over 850,000 had been reached. Nor was invention to stop at this point. Just five years later, in 1911, the total reached was several thousand over 1,000,000. At present each week sees from 500 to 700 patents issued and some 20,000 applications are continually awaiting action. This seems an enormous number, yet the next few years will undoubtedly see a still greater number issued. At the present rate of over 30,000 each year, it will be but a short time before the 2,000,000 mark will have been reached. This last will probably occur before the year 1945. Of course, the present patents will all have expired long before this time, so that the number actually in force at any one period is considerably less than would at first appear. Thus, at the present time (1911-1912), less than one-half of the total patents that have been issued since the beginning are still in force. The gradually increasing volume of patents will very likely keep the percentage in almost this same proportion for many years to come.

From the foregoing it will be seen that the United States Patent Law is founded upon a firm statutory provision and not the common law. In fact the common law affords absolutely no protection to the inventor. In its simple frame, a patent really gives the inventor a monopoly of his invention for a certain time as a reward for giving the invention to the public. The very word "patent" itself conveys this meaning. It means that which is open or disclosed and not that which is secret or sealed. It must be a permanent and complete

disclosure, in order to be entitled to a patent. The invention must be fully disclosed and shown to the public in an honest, unreserved manner. "Half disclosures, dishonest or crooked reservations, either willfully or through ignorance, cannot entitle the inventor to a patent and means the loss of his patent rights."

The United States patent laws are to-day, perhaps, the most liberal in the world. The inventor is given the unrestricted right to his invention for a term of seventeen years, without any taxes or additional fees. No foreign country offers as much to the inventor as the United States does. The result is that the United States leads the world in invention. None of the foreign countries can even compare with the United States in this respect. France, the nearest competitor, has less than one-half as many licensed inventions to her credit. Great Britain is a close third. Germany, Belgium, Canada, Italy and Sardinia, Austria-Hungary, and the remaining foreign countries follow in a decreasing line. Many of these countries have had greater opportunities to lead than the United States, but any two of them cannot equal the United States to-day.

The importance of inventions and the need of liberal patent laws is well established. The two are essential to the very progress of a nation. All civilization is directly dependent upon invention and discovery. This being true, it is with much pride that a citizen may point to the United States as the leading nation in invention as well as in many other fields.

CHAPTER II

THE PATENT OFFICE

PASSING from the brief record of the history, let us consider the present organization of the Patent Office.

The Patent Office is a very comprehensive organization. The Commissioner of Patents is at the head of the list of officers, examiners-in-chief, examiners, clerks, chiefs of division, translator, librarian, draftsman, copyists, messengers, laborers, and others. . He is assisted by a first assistant commissioner, an assistant commissioner, a chief clerk, and three examiners-in-chief, as well as the long list of lesser officers and employees. The total appropriation for salaries for the officers and employees of the Patent Office is one million two hundred and eighty-six thousand four hundred and ten dollars.* Of this amount the commissioner receives only five thousand dollars per year, the first assistant commissioner, four thousand five hundred dollars, the assistant commissioner, three thousand five hundred dollars; the chief clerk three thousand dollars, and the others corresponding and lesser amounts. When it is considered that these same men could earn several times this amount in private life, as patent attorneys and counsellors, and the great responsibility assumed, the smallness of the sum is apparent. This is even more marked in the case of the examiners and assistant examiners who receive still less remuneration. The latter are particularly fitted to become patent attorneys after their experience in the office. Thus, the patent attorney staff of a large

* Act of June 17, 1910.

electrical corporation is made up almost exclusively of former examiners.

All communications are required to be addressed to the Commissioner of Patents. Thousands of these communications are received daily. It is not the intention of the author to give a complete record of all the features and details of the Patent Office organization but there are certain features with which the reader should be familiar.

In the first place matters of form should always be complied with in transacting business with the Patent Office. Thus, if the foregoing formality should be disregarded and a communication addressed to some individual officer, it will very likely be returned to the sender. This is only one illustration of the point.

The Office will not answer certain kinds of inquiries, such as those asking about the patentability of an invention before the application is filed, questions concerning patents of a special class that have already been issued with the object of ascertaining whether or not certain inventions have been patented, etc. It may also be remarked in this connection that the Patent Office does not make any so-called preliminary searches for an inventor to ascertain and inform him whether or not his invention is novel.

It is thus seen that the applicant himself is responsible for actions taken in applying for patents. Of course the greater part of this responsibility can be shifted onto an attorney (see chapter on Attorneys), but the applicant still retains considerable liability.

An inventor may be advised as to the propriety of applying for a patent by his attorney or other persons but he must **decide** for himself whether or not it is advisable (see chapter on Patentability).

Of course, the Office with its records and models as

well as copies of patents and digests is open to the inventor as are also the printed reports. However, in the majority of cases it is not very convenient for the inventor to attend to this part of the business, so an expert or an attorney must be engaged.

The inventor is denied access to pending applications, filed applications, examiners' digests, and other papers which are kept in secrecy. It is thus apparent that an inventor may expect but little assistance from the Office before he files his application.

Publications. — The publications of the most use to an inventor are:

The Official Gazette which is issued weekly and which contains digests of all the patents issued for that week (the first five claims and generally one illustration), as well as a list of the trade marks and prints registered, patent decisions, index, and other items. The subscription price is \$5.00 per year and single copies cost 10 cents each.

Printed copies of patents. A copy of the specification, claims, and in most cases the drawings. The cost of each copy is only 5 cents.

The rules of practice, containing the fixed rules of the Office, which every inventor should have. This may be obtained gratis.

Patent laws, with annotations, a somewhat technical pamphlet which may also be obtained gratis.

In addition to the foregoing there are many bound volumes of decisions, patents, and drawings, as well as leaflets.

The Patent Office publications have been recently transferred to the Superintendent of Documents and may be obtained from him by addressing The Superintendent of Documents, Washington, D. C.

Formerly the majority of the publications were obtainable directly from the Patent Office.

The Office does not keep printed copies of foreign patents for sale.

A New Patent Office Needed. — In spite of the enormous expenditure required to conduct its business, the Patent Office to-day has a surplus of some seven millions of dollars to its credit. It is one of the very few self-supporting branches of the Government. However, in the midst of this apparent prosperity, the Patent Office appears to be deteriorating. The building is altogether too small to care for the present demands upon it. The clerks are crowded in dark rooms, which are piled high with documents and the records have accumulated in a disorderly condition.

The models have been crowded out of the building for the most part and placed in storage places. As the Office now exists there is a considerable fire hazard. The constantly increasing volume of documents as well as the increasing business will of course not help matters. Recent agitation has stirred up the need of a new building and since the new building will not require an expenditure by Congress it seems that the situation should receive early relief. The present Commissioner of Patents has been particularly active in urging a new building. This is a matter of great importance to inventors and should receive earnest support. A commission was given \$10,000 by Congress for the purpose of investigating the Patent Office in 1912 but was hampered in its work by limited funds and lack of a technical staff.

Responsibility of Officials in General. — The Patent Office is not entirely independent but belongs to the Department of the Interior. The Commissioner and the Chief Clerk are bonded officials. The Commissioner is required to give a bond of \$10,000 with surety

and the Chief Clerk \$5,000 with surety to the Treasurer of the United States.

There is sometimes a doubt in the minds of certain inventors as to whether it is safe to disclose their inventions to the Office employees. Time has established the fact that their misgivings are unfounded. The foregoing item is a still further insurance. In fact there would be little chance for an employee to appropriate an applicant's idea or to be influenced against an individual by some outside person. All of the officers and employees are incapable of either acquiring or taking, directly or indirectly, except by inheritance or bequest, any right or interest in any patent issued by the Office, during the time for which they hold their appointments.

There have been rumors of practices which are not commendable — of a lobby to waylay valuable applications — of collusion with employees — but such rumors have not been substantiated.

The inventor, then, may have no cause to worry in this respect. In fact, there has been only one case of record in which an employee was dishonest in this respect, and the case was speedily discovered and the employee sent to prison.

For any of the readers who may desire to become examiners in the Patent Office it is stated that this branch of the service is under the United States Civil Service Commission and that particulars may be obtained gratis by addressing the Commission at Washington, D. C. Anyone over twenty years of age who can pass the requirements is eligible to appointment as an assistant examiner. The examination is very rigid and covers three days of six hours each. As a result the examiners are all men of high attainments. Further promotion then occurs within the office and leads to

the position of Commissioner or one of the other high positions.

The Search System.—The United States is one of the leading countries in the matter of examination into the novelty of an invention before allowing a patent for the same. The work of examination is divided into forty-three divisions at the present time, each having to do with a certain class of inventions. The status of each division is given weekly in the Official Gazette. Many of the divisions are months behind in their work, while others are nearly up-to-date. The main classes are further divided and subdivided into many subclasses, and an application can generally be classified without much difficulty. All printed matter, books, magazines, foreign patents, and other references which can anticipate an invention are arranged in an accessible manner so that a list of references for a given case can be readily found if they exist. The records are not infallible, however, and in a few cases are not even complete, but for the most part the search is very accurate and complete. In addition to the search into the novelty of an application a search is also made of any similar cases on file to determine if they may be referred to or held to embrace the application under examination. The applicant is required to clearly define his invention so as to distinguish it from references of record. Claims which may be interpreted to include any references on record are generally rejected. The matter of claims will receive attention later.

At the present time the search system is far from perfect because there is no complete classification of all the patents which have been issued and because the work of properly handling all of the cases is hampered by inadequate facilities, examining force, and funds.

CHAPTER III

PATENT ATTORNEYS

The Need of an Attorney. — As was pointed out in the preface, it is not the intention of this book to make the inventor his own attorney. There is a saying which attorneys like to quote at times which runs something like this,

“He who tries to be his own lawyer has a fool for counsel.”

It might be better to say that one unfamiliar with patent procedure who tries to be his own lawyer has an unwise man for counsel. No one can refute the fact that an inventor who is also familiar with patent procedure and skillful in presenting an application has a distinct advantage over other inventors who must depend entirely upon an attorney, and that he may present his own case better in many cases than an attorney.

Of course the chief object of an inventor should be to invent and he is likely to be too busy inventing to take the time and trouble to present his own case. However, a knowledge of patent matters cannot help being an aid to a successful inventor.

In the first place, an inventor who understands patent matters can present his case to an attorney much better than one who does not. He is better able to point out the novelty and merits of his case, and to suggest strong claims in many cases. Then too, he is able to understand the references “dug-up” in a preliminary search, to realize the strength or weaknesses in the claims which

he is allowed, to decide whether a claim will be of value, to take the proper precautions to establish priority, and many other items.

To be sure, there is the case of the so-called poor inventor. To him it seems that lack of funds will force him to present his own case. Of course, there is the alternative of assigning the whole or a large part of the invention to some financial supporter, but there are many who are reluctant to do so. The path of the poor inventor is indeed a hard one. Even if the difficulties are surmounted and the patent is obtained, the difficulties generally begin all over again when he attempts to sell or market the invention. Of course, this is not intended to discourage any inventor and even then it is doubtful if he could be discouraged.

It is not difficult to trace the progress of an application which is presented by an inexperienced person. The mistakes in matters of form, the delays, the prolixity in the claims, the inability to appreciate the significance of certain references and non-application of others, the inability to tell the necessary and omit the unnecessary portions, all these and others are common occurrences and causes of failure. Of course, a simple case is less likely to fail than a complex one. Imagine how an inventor would get along in a divisional case, or in interference proceedings without counsel!

From the foregoing some readers might be led to conclude that the attorneys had somehow influenced the paragraphs in their favor. The viewpoint is unprejudiced and merely shows the task which is taken when an unskilled person attempts to present his own case. Of course it does not follow that he must fail in the attempt. He may even make a big success. In the rules of practice the Patent Office itself recommends that an attorney be employed, and goes on to say, "as the value of

patents depends largely upon the skillful preparation of the specification and claims."

How true this last statement is! Under the present method of Patent Procedure, the *value of a patent does not* depend upon the merits or novelty of an invention as much as it does upon the *skillful preparation of the specification and claims* and the prosecution of the application. This may appear unfair but it is nevertheless true. The reason will appear later when the construction of the specification and claims is discussed.

Selecting an Attorney. — It is of importance to the inventor that he should have a *competent* attorney to present his case. In view of the foregoing paragraphs and remembering that there are some sixty thousand applications more or less filed each year it is little wonder that these patent attorneys should form a numerous and apparently prosperous class in themselves.

How, then, is an inventor to select an attorney? Should he select a local or a Washington attorney? These and other questions must be answered by the individual. The Patent Office does not, of course, recommend any particular attorneys. A register of attorneys, however, is published and may be obtained from the Superintendent of Documents for twenty cents. In this register the names of all persons who are entitled to represent applicants are kept. It is not necessary that a person be an attorney-at-law in order to be registered. It may be remarked that while this register is intended to be a guide to inventors, it is an open secret among attorneys that there are a few names on the record which ought not to be there. This is an unfortunate circumstance and should be remedied.

While it is not the intention of these paragraphs to "knock," it is felt that the reader should be warned against certain "Bargain-advertising Concerns," who

make alluring offers. Indeed some of these concerns have advertisements and literature which are especially alluring. "Patent obtained or your money returned, bargain rates, vague assurances, etc.," are the more common offers that are made. While these concerns undoubtedly obtain a number of valuable patents, the methods which are often employed are unprofessional to say the least. Who can commend concerns which offer so much a head for names of inventors who become their clients? Certain concerns advertise that they make "Free Searches," and offer guarantees of patentability. There is no doubt that some inventors are benefited by such an arrangement, but there are a goodly number, on the other hand, who are misled into spending considerable time and money. An inventor who writes to one of those concerns is quite likely to receive some such reply as this:

"We find that there are several patents similar to yours but since many of our clients are often able to make certain changes and thus obtain a patent we will forward copies of these patents to you upon the receipt of \$. You are of course aware that up to the present time we have acted for you without compensation."

There seems to be a tendency on the part of some inventors to distrust patent attorneys, as a result of the few who have caused the trouble. Indeed it appears that at times the situation has been almost as serious as the cases of the pension attorneys some years ago. The author recalls the time when the names of certain attorneys were carried in the Gazette as a warning against their unreliability. Attorneys who were disbarred from practice before the Patent Office under one name often resumed practice under another name and so on. At the present time it is not definitely known that any serious fraud exists in

this respect, though certain cases are certainly open to suspicion.

In justice to the great number of reliable attorneys it may be said that they work honestly and conscientiously for their clients and do everything possible to protect the interests of the inventors whom they represent. Of course, there is the other extreme, namely, those few attorneys who charge what seems to be almost extortionate fees, but in this respect, every man has a right to set his own value upon his services.

The government takes considerable care to protect the inventors from incompetent attorneys, but of course some continue to flourish in spite of all. As an example of this an amendment to paragraph 22 of the rules of practice is quoted below.

“(d) The Secretary of the Interior may, after notice and opportunity for a hearing, suspend or exclude from further practice before the Patent Office any person, firm, corporation, or association shown to be incompetent, disreputable, or who refuses to comply with the rules and regulations thereof, or who shall, with intent to defraud, in any manner deceive, mislead, or threaten any claimant or prospective claimant, by word, circular, letter, or by advertisement, or by guaranteeing therein the successful prosecution of any application for patent or the procurement of any patent, or which word, circular, letter, or advertisement shall contain therein any false promise or misleading representation.” (Sec. 5, act approved July 4, 1884.)

Relation of the Attorney to the Inventor. — The inventor or the assignee of the whole interest upon conveying the power of attorney to an attorney practically gives the whole care of the case to him. The attorney then conducts all of the correspondence with the Patent Office generally to the exclusion of the inventor and

information concerning the progress of the case must come to the inventor second hand.

There is, then, every need for trust and confidence in the attorney. When the attorney can be interviewed personally this is much easier than when correspondence alone must be relied upon. Of course, the inventor may revoke the powers of attorney at any time if need be. He is thus doubly protected.

Whenever possible, it is generally advisable to employ the services of an attorney who is particularly skilled in caring for cases of the particular class to which the invention may belong. In fact, attorneys who also have mechanical ability are the better fitted to care for many cases.

The Value of the Attorney. — In general the need of an attorney has already been pointed out. It is a well-known fact that there are some attorneys who are not of high efficiency in caring for their clients' applications, not because of any dishonesty, but because of the general inability to give the case proper care and treatment. In fact, some of the cases which reach the abandonment stage in the hands of certain attorneys are good proof of the foregoing statement.

Generally speaking, a case should be completed within a short time, but of course the indiscriminate canceling of claims and similar methods are not commendable. Certain attorneys make a practice of so-called "rush-work" and care for a great number of cases in a given time by this method. The crowding of work cannot but result in some careless work, although the experience of the attorney may be such that both rapidity and accuracy are possible.

As has been pointed out, the government takes considerable precaution to protect the inventor from disreputable persons. It does not, however, require any

bond from attorneys at the present time and since the chances of prosecution are somewhat remote there are still some attorneys of this class who continue to flourish. It is hoped that the standard of all Patent Attorneys will soon be put upon the plane of the higher class and above reproach or suspicion.

The Duty of the Attorney. — In accepting a case the attorney takes considerable responsibility and it is his duty to attend to it in confidence and trust. The inventor should be fully informed of the probable commercial value of the invention, of the present state of the art and the significance of prior patents in the same class, and the probability of obtaining a patent of real worth.

When this is done, the waste of money and time in obtaining patents of little or no use will be minimized. It is a well-known fact that a considerable number of worthless patents are instigated and encouraged by certain attorneys who have no further interest than the resulting fees. The inventor is often made to believe that his invention will be of impossible value and is blinded to the commercial aspect of his invention.

It often happens that the inventor is led into believing that the patent which is obtained is a sure protection for his entire machine, when in reality it merely covers some nonessential details. In this connection the concerns who advertise that they obtain patents or return fees are particularly active. To attorneys it is comparatively easy to obtain a claim or two on some detail feature of an invention, even if it is otherwise anticipated by references of record. In fact, in many cases the inventor is advised to make minor changes in order to facilitate the obtainance of such patents. It is through these and similar methods that the patent office is padded with superfluous patents. The only

profits which accrue in such cases are those which the attorney obtains as fees.

The confidence and trust in an attorney is of the utmost importance and should be fully reciprocated. No one should confide in any of the scheme attorneys. It is sometimes difficult to distinguish between reliable and unreliable attorneys. Some of those who make great promises show long lists of printed references, make the greatest offers of free services, warn the inventor against fraudulent concerns, make apparently iron-clad contracts, and resort to similar plans, are the ones who are to be avoided. They can generally be discovered by evidences of bad faith, such as direct contradictions in their literature and circulars, condemnation of the very practices which they themselves employ, misleading statements, and other earmarks. The whole matter is quite completely covered by the digest from a famous disbarment case, which will be found in the appendix.

Patent Experts

Patent experts are engineers, chemists, and technicians who furnish legal minds with technical advice, particularly in court.

Experting has come into some disrepute by reason of the abuses to which it has been put by some parties to increase the cost and time required for suits and to distort the facts of the case. Experts receive some \$25 to \$100 a day in court. Some day, perhaps, the procedure will be changed so that the Court will have the benefits of impartial professional experts of high honor and rigorous morals.

CHAPTER IV

THE GERMS OF INVENTION

The Inventor. — There may be some doubt as to what an inventor really is. In the ideal sense he is a creator of a new utility, a man who has successfully applied his knowledge and skill to the origination of a new machine or process or art or an improvement thereof. From the Patent Office point of view, however, he is not an inventor until the *alleged* claims in his application are allowed, and his invention is always spoken of as an *alleged* invention. If a still more critical view is taken, namely the commercial view, he is one who creates successful inventions.

It is generally conceded that the ability to invent must be inborn in the individual although it may be acquired through training. As stated in the beginning of Chapter I every person has some inborn ability although it is generally so stunted through disuse that it is of little availability. Of course there are some inventors whose senses are constantly alive to the task of inventing and who cannot help inventing. Again, there must be something more than just the mere idea to make a successful invention, and the inventor who stops at this point often fails. Inventors, then, must carry out as well as conceive new ideas.

With some exceptions, the most effective inventors are men between the ages of 20 and 35. Invention is full of romance. Perhaps it is the very stories of success which have made inventing so alluring.

Inventors may be divided into two classes, those who are guided or trained and those who are not guided or

trained. The chief difference between the two is that the former are the successful inventors as a whole and the latter are the unsuccessful ones for the most part. Since the first class is the more desirable, let us consider some of the points which control the inventions of those who are in this class.

The Elements of Success. — Inventors of the first class apply scientific principles to practical purposes. The method employed may be divided into two classes, the *inductive* and the *deductive*. By the inductive method known data and facts are classified and practical principles are evolved by continual experiment and elimination. The development of the incandescent electric light is a good example of this method. By the deductive method the desired invention and its principles are known and all that remains to be found is the practical means and methods of producing the known result. Either or both methods are employed. The invention of color photography may be taken to illustrate the combined methods. It was known that shadow images of an object were different when taken on a plate through different colored filters in front of the lens and that this method could be utilized to produce colored photographs. The deductive method was then applied to find the practical means for carrying out the result. The inductive method was employed to evolve the final method from a classification of the known facts and principles.

Inventors of the first class are familiar with conditions and limitations of inventions and are able from their study of other inventions to carry out the desired idea. The other class, on the other hand, go about the task without a definite idea of the result desired or prior attempts at a solution and trust to luck to find or discover the desired means. The latter method, to be sure,

is often successful and some of the biggest inventions have been made by it, but, on the other hand, it is the least direct and the most hazardous method since, as has been proved again and again, it is much easier to miss than to hit. Inventors of the latter class are largely those who invent articles of little utility and which are not urgently needed by the people.

Indeed, as has often been said, necessity is the true cause of a real invention. Everybody may know the need but only an inventor can fill the desired want. To illustrate: It was known that it would be very convenient to have a razor which could be used with safety by an unskilled person and that such a razor was in demand. Unless inventors had worked out the method and details to satisfy the need it would only remain as a need until some other inventor took up the problem. Thus, at the present time, it is generally known that there is an urgent need for a cheap substitute for platinum which will be equal or superior to it for all purposes, but only an inventor can supply the substitute. We see then that an inventor differs from the ordinary person in that, besides having a desirable idea, he conceives the means for carrying it out. An inventor, then, should study the public and watch for its needs and in this manner he can avoid inventing useless inventions. While a part of the readers are undoubtedly inventors and will not perhaps need to be reminded of the first principles of inventing it is desirable to outline them for those who would like to become successful inventors.

Methods of Attack. — A keen observation and ability to see the essential items is of the greatest value. It has already been pointed out that the public should be studied before inventing something which the public will need. In addition to this precaution it is necessary to thoroughly learn the difficulties which stand in the

way of the result and to have confidence and self-reliance to begin the attack. For this purpose a knowledge of previous attempts at the same problem is almost indispensable.

Having gathered all the facts which are possible in the case, the problem is often reduced to the process of elimination and of surmounting the defects of previous attempts. The success of the inventor will depend largely on his ability and his previous training. Thus an inventor who had previously invented a substitute for rubber or one who was well versed in metallurgy would naturally have a great advantage in attacking the new problem of finding the substitute for platinum. Similar processes would be involved and mistakes formerly made would then be avoided. Continuing with this same example, let us suppose that in spite of resolute and determined attack the problem still remains unsolved.' Some inventors are apt to become too deeply interested in a single subject of this kind and to work too long on what may be an impossible idea. In such a case, it is advisable to give up the subject for a time and to attack other and more varied subjects. In any case the big problem can always be taken up again and the mind is thus kept at an even balance. Then, too, success in varied enterprises may aid financially as well as mentally toward the realization of the main pursuit. Inventing is brain work and the process demands a well-balanced mind.

Suppose that the great idea finally comes. To some it may come suddenly and without any great effort. It may so happen, that the mind will be temporarily diverted upon a slight phenomena or even a different subject, when it will suddenly seize upon the similarity of the cases and the adaptability to the problem. It is a peculiar fact that an inventor may work for years

upon a subject only to succeed in an unexpected manner through some trivial circumstance. Such a success could not be called accidental because it is the result of constant observation and close association with the subject.

Now in the case of the inventor who has previously succeeded in finding a substitute for rubber, it is not unlikely that the former success will suggest the solution of the new problem and that the result will be obtained by applying the old and well-known facts to the new case.

Or, again, an independent worker who had perhaps never thought of producing the desired substitute before, might arrive at the solution while engaged in an entirely different pursuit. Thus, some scientist in studying the expansion of metals or the standardization of weights might discover the desired substitute. Such a process has actually happened and is illustrated by the gas mantle of Welsbach, the nitro-explosives of Noble, and the invention of vulcanized rubber. In each case the inventor was engaged in a separate pursuit when the discovery was made. In the case of the gas mantle, Welsbach was engaged in experiments with certain rare earths when he noticed the peculiar incandescence of certain materials when held in the flame of a Bunsen burner. His inventive mind led him to further experiments and suggested the impregnation of fabrics with the incandescent material. The gas mantle was finally evolved out of the mass of his experiments. Such examples serve as stimulants for future inventors and it is for this reason that the invention of the crimped hair pin and the humped hook are mentioned.

As the story goes, the invention of these big successes was due to an observing Philadelphia man who noticed the manipulations of his wife in bending the straight

hair pins to make them stick, and who, in noticing that ordinary hooks unhook, also conceived the idea of providing them with a hump.

Even the most trivial thing is worthy the notice of an inventor and the foregoing example certainly shows that big results can be obtained from little things. At this point it occurs that one man's success is often the stimulus for duplication and imitation. While such imitation and duplication often result in big improvements and cannot be condemned, it is well to point out that there is apt to be altogether too much duplication and imitation for which there is no demand and which only lead to failure. The recent success of the safety razor serves to illustrate this point. Although there have been literally hundreds of patents obtained for improvements on safety razors and although there are still a number patented each week, it is a significant fact that only a comparative few of these are actually marketed and that a number of new concerns based on such razor patents have recently failed while the original companies continue to succeed. This illustration also recalls another one, the nonrefillable bottle, which has probably never been successfully marketed and over which many inventors have racked their brains and through which many attorneys have received fees and through which inventors continue to rack their brains and through which attorneys will continue, etc. The patents for nonrefillable bottles still continue and will probably never cease and merely serve to illustrate the useless duplication and also one subject that it is not advisable to attack. Of course, if the perfect cheap bottle is finally evolved, much of the work will be justified, but no profit will accrue directly to the hundreds of patentees who have worked on the subject.

As has been pointed out, while working on a given

subject, one experiment will often bring up a new subject and it requires a good observer to pick out the essential points. The first idea is apt to be crude and it generally requires much work to trim it to a practical shape. Each individual worker has his own methods of attack and each in turn has a varying per cent of success.

The successful inventor does not stop with the crude idea; in most cases he merely begins at this point. As has been said, experience and previous training are the biggest assets at this stage. Then, too, ability to picture the final result, to see all the details in the mind's eye, and the ability to conceive the complete idea are of the utmost importance. It is at this point that the non-practicability of an idea may appear to an inventor which would not ordinarily appear until long afterwards.

Some inventors go through a complete preparation process, including reading of available matter on the subject, examination of previous patent records, etc., before beginning the actual attack on the subject. Other inventors omit such preliminary work, often to their future regret, and apply the first idea directly to a model. Some even start out by making a full-sized embodiment of the crude idea. While the latter method is generally quite expensive, it offers the advantage of showing the short-comings of the device in a much clearer manner than an ordinary intellect could otherwise figure out. Of course, ability to draw, even poor ability to draw, combined with good intelligence, offers a still shorter method to the final result. In fact, it is a good plan to embody every idea in a sketch or a word picture.

When the model method is adopted the inventor's task becomes one of elimination and continual working

to eliminate the faults. This may be a slow and discouraging process and continued unsuccessful attempts may even lead to a depression on the inventive faculty. In such a case it is well to change to another subject, temporarily at least, as has already been suggested.

The item of "reduction to practice" is the stumbling block of many inventors and often leads to difficulties later. This will be explained in another chapter. Models offer a convenient method of applying the idea preliminary to the actual full-sized model. When experiments are conducted on a small scale great care must be taken to avoid unequal conditions and exaggeration of any particular items. For example, the magnetic traction scheme in which the car wheels were held to the track by magnets worked fine as the model indicated but utterly failed in practice. The reason was that the relative sizes of the wheels and the track were greatly exaggerated in the model (fraudulently in this case) and the actual conditions were not kept in a rational balance. We might point out that this is a common occurrence and that the failure of a full-sized model, after the success of a small one, can generally be traced to an unbalanced ratio of parts.

Another common cause of failure is the over-enthusiasm and optimism of some inventors and the resulting inability to see the faults in their inventions. In fact, it is just as important to be able to pick out the faults as it is to invent the machine with the faults. The correction of the faults is a separate problem or a complex problem in many cases and while it may appear superfluous it should be remembered that unless the original inventor perfects the device, some other inventor probably will. The inventors who finally evolve the perfected invention whether they are the originators or not, are the ones who generally reap the rewards.

Joint Inventors. — It is with the latter object that two or more inventors will often work together, the one to improve what the other conceives and in this manner produce a perfected invention which would not otherwise be possible. Of course there are other conditions which may result in a joint invention and some of these will be discussed later.

Development Before Application

If suitable precautions are taken, one loses nothing by taking the necessary time to develop the invention, make and try embodiments of it, make preliminary examinations and to bring the invention to a practical, tangible form. The law allows all the time necessary for experimental purposes and also two years but not a day more for public use. To run this course, however, the inventor must protect his rights by observing iron-clad precautions. He must be diligent in his experimental development and persistent. He must at every step keep a witnessed log of the invention, witnessed drawings, witnessed tests, witnessed models and photographs.

Suppose another files an application for the same invention before you do. What then?

The so-called burden of proof is on you, to be sure, but if you are the first inventor and can prove it you can carry the load, provided of course that your financial condition permits you to maintain your rights. The other applicant cannot prevail against you if you were the first to reduce the invention to practice even if he can show that he thought of the invention first, provided of course that he did not make an operative model.

CHAPTER V

THE FIELDS OF INVENTION

ACCORDING to the patent laws, a patent may be obtained by any person (man, woman, or child, black or white, rich or poor, etc.) who has invented or discovered any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvement thereof, not known or used by others in this country before his invention or discovery thereof, and not patented or described in any printed publication in this or any foreign country before his invention or discovery thereof, or more than two years prior to his application, and not patented in a country foreign to the United States on an application filed more than twelve months before his application, and not in public use or on sale in the United States for more than two years prior to his application, unless the same is proved to have been abandoned, upon payment of fees required by law and other due proceedings had.

This, in its simple frame, is the fundamental limit to the fields of invention for which patents may be obtained. To be sure, there are numerous other requirements, written and unwritten, which stand in front of certain classes of invention and the details will be discussed later. Without considering the details let us take up the several classes of invention mentioned, and the subclasses.

A complete, or even an approximately complete list of possible classes of inventions is impossible for the very fact that the fields of invention are unlimited and

constantly expanding. Indeed, this is shown by the shifting of subclasses in the Patent Office to keep up with the increasing demands. A general classification, as maintained by the Patent Office, is given on pages 36, 37, 38.

GENERAL CLASSIFICATION

Room No.	Divisions and subjects of invention
313	1. Fences; Harrows and Diggers; Plows; Seeders and Planters; Trees; Plants, and Flowers.
128	2. Bee Culture; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco.
173	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Shaping Fluid Metal.
232	4. Bridges; Conveyers; Cranes and Derricks; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures.
167	5. Bookbinding; Harvesters; Jewelry; Music.
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Medicines; Preserving; Sugar and Salt.
312	7. Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Nut and Bolt Locks; Optics; Velocipedes.
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.
142	9. Air and Gas Pumps; Fluid-pressure Regulators; Hydraulic Motors; Pumps; Wind-Wheels.
235	10. Carriages and Wagons.
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.
324	12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.
329	13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Turning.

Room No.	Divisions and subjects of invention
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Liquid Coating Compositions; Paper Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastic Compositions; Plastics.
109	16. Telegraphy; Telephony.
303	17. Matrix Making; Paper Manufactures; Printing; Type-bar Making.
327	18. Injectors and Ejectors; Miscellaneous Heat-engine Plants; Steam and Vacuum Pumps; Steam-Boilers; Steam-Engines; Steam-engine Valves.
236	19. Dampers, Automatic; Furnaces; Heat-distributing Systems; Stoves and Furnaces.
179	20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking.
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordinance; Ships.
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-controlling Mechanism.
144	24. Apparel; Apparel Apparatus; Sewing-Machines.
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.
106	26. Electricity, Generation; Motive Power.
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.
65	28. Internal combustion Engines.
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Wood-Working; Wood-working-Tools.
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Typewriting Machines.
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.
278	32. Carbonating Beverages; Curtains, Shades, and Screens; Dispensing Beverages; Dispensing-Cans; Ornamentation; Packaging Liquids; Refrigeration.

Room No.	Divisions and subjects of invention
71	33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes.
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.
244	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.
264	36. Drafting; Driers; Engraving; Measuring Instruments; Photography.
107	37. Electric Lighting; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.
378	38. Animal Husbandry; Artesian and Oil Wells; Fishing and Trapping; Stationery; Stone-Working.
321	39. Water Distribution.
280	40. Baggage; Bottles and Jars; Check-controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.
125	41. Railway Draft Appliances; Resilient Tires and Wheels.
279	42. Electric Railways; Electric Signaling; Railway Signaling; Signals.
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.
161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS: Trade-Marks. Designs. Labels and Prints.

Perhaps the inventions which have to do with machines are the most numerous for the reason that they are invaluable with reference to the other branches of invention. It is believed unnecessary to merely enumerate random machines which are apparently needed because the individual inventor can easily apply himself without being told how. The following items, then, are

merely suggestive with reference to machine inventions and are by no means exhaustive.

The Elimination of Handwork.—In its several branches the elimination of handwork is perhaps one of the most fascinating fields of invention. It is ideal in that it offers unlimited power to the inventor to serve humanity, unlimited problems to attack, and lasting reward with success. The possible branches vary from the intricate automatic machinery which supplants the puny efforts of thousands of human beings to the simple little devices which make individual and domestic life easier. Primarily, such machines are intended to conserve manual labor. In most cases the cost is considerably reduced, the work finished much better, and faster than that done by human beings, the output made more constant and uniform, and the great human element of carelessness avoided. Let us consider the case of an adding machine. Thousands of clerks in all parts of the country are no longer employed to do inefficiently, at best, what a comparatively few adding machines are now employed to do, with most of the advantages just enumerated. The complex machines which set and cast type with more than human precision, the machines which make and repair shoes, the machines which make needles, pins, hooks, and similar articles are only a few of the many examples of labor-saving machines, while the mere mention of such devices as food choppers, bread mixers, washing machines, and the like serves to illustrate the possibilities of the other extreme of this class of invention. In this connection there is one point which is of more than passing interest. In nearly every case of labor-saving and automatic machinery it may be noted that the machine-made operations are different from the corresponding human operations. For instance, rotary motions largely sup-

plant the finger and elbow motions of the human being. In fact, in many cases an exact duplication of human motions would be impossible and even when possible it is often desirable to avoid them for practical reasons. The point then is, machine operations in substitution for human operations should be adjusted to machine methods and not human methods in nearly every case. The failure of a number of attempts at this class of invention may be traced to a neglect of the foregoing principle.

Protection of Human Life. — Since inventions are primarily for the benefit of human beings, it is only natural that the safeguarding of human life should be a very desirable field of invention. The percentage of successful inventions of this class is somewhat higher than some other classes for this very reason. Safety inventions are generally in the nature of improvements over existing conditions. Such simple inventions as a guard around a gear wheel and a guard around a razor blade to such complicated inventions as the magnetic air brake, these and many others are deserving examples of worth-while inventions of this class. The inspiration for such inventions often results from accounts of accidents and disasters, and a keen observation and study of the cause leads the inventor to the desired improvements. The mere fact that such common and apparently unpromising articles as the match and the razor have been made safe should serve as examples of the opportunities in this field.

Reduction of Cost. — The modern trend in all branches of business enterprise is to reduce the cost of producing, with the secondary object of increasing profit. Any invention which will accomplish this end or even contribute to such a result is in great demand and of assured success, provided that it remains within the limits of practicability.

In this class of invention substitution and simplification are the chief factors, with cheaper materials and increased output with the same or better results as a secondary consideration. The hot-air blast applied to steel making is a good example of this class of invention. The simple use of uniformly heated air in steel making was the solution of the difficult problem of producing steel of a uniform quality. It should be noted that cost-cutting inventions are most suited to operations in which an enormous amount of material is handled.

Commercializing Waste Materials. — The present tendency of the commercial world is to minimize waste and to utilize waste materials for practical purposes. The inventive mind is called upon to devise ways and means for doing this in a profitable manner. Crematory plants which produce excess electricity from garbage, plants which produce fertilizers from garbage, the manufacture of Blau-gas from petroleum waste, and the extraction of gold and other metals from mining wastes or from material otherwise inaccessible, are all good examples of this class of invention.

Machines to Accomplish New Results. — In view of the modern development of machines, it is seldom that special machines are actually necessary to accomplish a new result, because machines already in existence can be adapted to the new purpose. This does not always hold true, however, and the invention of special machines for special purposes is a worthy although perhaps less promising field of invention.

New Articles of Manufacture. — A considerable portion of all patents issued is for inventions of this class. These are not necessarily limited to small articles as the name suggests but may include large articles as well. That this class of invention is very remunerative when the article fills a demand goes without saying, but this

class of invention is also overdone in certain cases by useless duplication. By an article of manufacture is meant a new pot, an improved chair, a fuse plug, a film cartridge, or any of the thousands of other articles possible. In this class, it is worthy of note that articles possessing novelty and which are in demand or for which a demand can easily be created, are in constant demand. Such simple things as folding boxes, games, metal novelties, and similar articles find a ready market. In articles of this class cheap production in quantities is almost essential to success. It is a well-known fact that inventions of this class are often more remunerative than the more complicated inventions of other classes. The chief requirement of such articles may be summed up in the words, "to please the public."

Process Patents. — Process patents are not as numerous as other patents for the very reason that process patents generally refer to isolated methods of producing which are limited to the several arts. Such process inventions may revolutionize a given art or again they may be valuable or useless improvements as the case may be. Like the case of machinery, previously discussed, processes have the object of cost reduction, increase of production, and the other advantages as objects. For the most part, a process can be better protected by patent than a new machine because of the fact that process patents are less numerous than the other class. Very broad claims can be obtained for this class of invention. Methods for producing new products, chemical compounds, articles of manufacture, extracting and refining metals, and for producing new results or parts contributing to new or old results, are examples of this class of invention. The contact method for producing sulphuric acid and the process for producing artificial indigo are good examples of specific methods in this class.

Composition Inventions. — Composition patents are often very valuable, particularly when they utilize some otherwise wasted materials, or when a new substance of great utility is the result. Leatheroid, substitutes for leather, rubber, metals, etc., insulating compounds, alloys, mixtures, and compounded raw materials are examples of this class of invention. This class of invention relates to the production of better raw materials, substitutes for expensive raw materials, the use of otherwise wasted materials, or the production of a material having marked novel properties. Since nearly all raw materials including foodstuffs are in this class, it is surprising that there is not greater activity in this class of invention.

Improvements. — The main classes of invention with the exception of design patents have been considered. Design patents and their value will receive attention later.

That part of the patent law which says that a patent will be allowed for any new and useful improvement of any class of invention, is perhaps the most important portion because the vast majority of the patents issued depend upon this provision. Nearly all of the patents which are issued are for improvements in the several arts, processes, machines, compositions, or articles of manufacture, rather than for entirely new inventions.

It is often said that the perfected invention is the work of scores of inventors rather than one man and in many cases this is true. The original device or machine as patented by the originator is apt to be clumsy, too expensive, too complicated, unreliable, etc.; but in spite of the defects it embodies the correct principles. The next inventor who takes up the same problem eliminates part or all of the defects, the next inventor and his successors in the same field continue to improve

the preceding invention and so on until the perfected invention results. Frequently an apparently trivial change may mean the difference between the success and the failure of an invention. Thus the moving picture machine was made practical by merely enlarging the size of the projecting hole and a patent covering this change was upheld by the courts.

It is for these reasons that the original inventor of a new machine or device may fail to reap a reward. The original invention is rendered useless because of its crudeness, unreliability, and other defects. The basic principle may be solved but the perfection of the details is the restraining force which separates the originator from success. It may happen that the original inventor is able to improve his own crude invention and thus obtain success, but only too often the success is given, and sometimes the credit for the invention is also given, to the inventor who improves the crude invention and makes it practical. The history of patents is well supplied with instances of this kind. Consider the recent invention of wireless signaling. Undoubtedly the name of Marconi is suggested at once as the original inventor, yet he can only be considered as the inventor who improved and made wireless signaling practical. The earlier workers, including scientists as well as inventors, received but a very small portion of the success which would have been their due if they had worked out the details. The case of wireless signaling points out another fallacy.

After the ——— Company was formed, it was found that there were a few prior patents of little or no utility which had been issued to inventors for systems of wireless signaling. At that time the untuned wave system with the coherer receptor was the only known successful system of wireless signaling and it was evidently thought

that it would be the final system, allowing for the perfection of details. These prior patents were then bought by the —— Company as far as was possible and for a brief time the company had a complete monopoly of the art. At the present time the numerous successful systems and the various companies other than the —— Company are evidence of the inability of one patent or a group of patents to be final and least of all to control an entire art. No matter how perfect an invention may be it appears that there is always the possibility of improvement and nothing has ever been invented, even at the present time, which cannot be improved. The field for improvement patents is thus unlimited.

The value of improvement patents often exceeds the value of the main patents in the art. To illustrate: A certain corporation bought the patent for the main principle of an art for a mere song. The improvement patents which were then obtained were valued at from fifty to one hundred times the amount paid for the original patent. It does not follow that this is always the case, for the original or so-called "basic" patent is often the chief asset* of a large corporation and may be worth considerably more than all of the improvement patents put together. It is for this reason that certain inventors of fame who have conceived great and revolutionary inventions of broad scope, but who have not carried them out to the fine details through lack of the necessary ability or funds, have had the greatest success. Perhaps the development of the telephone and the automobile are the best examples of such successes.

In the case of the automobile, the inventor was a shrewd patent attorney as well. With advantages not

* At least one large electrical corporation does not list its patents as assets.

possessed by ordinary inventors he was able to foresee that his invention was a little ahead of the times and to engineer it through the Patent Office in such a manner that it was finally allowed at just the proper time and some ten years later than the date of filing.* The claims had been so constructed as to make the patent basic and as a result the inventor was able to force tribute from the majority of manufacturers of any type of gasoline-propelled vehicles. Could there be a better example of the value of an understanding of patent matters to an inventor?

Process of Improvements. — As in the case of methods of attacking the inventive problem, as discussed in Chapter IV, the improvements of inventions require definite methods of attack. Perhaps the most fundamental process is that of simplification.

Fewer Parts and Better Work. — The inventive mind becomes dissatisfied with the condition of an invention as it is and seeks to simplify the operations. However, in cutting down the necessary number of parts, the resulting device must not be lessened; that is it must do the same work as before with the fewer parts. If a simplified device does not do the same work it is not considered an invention. For instance, A invents an incandescent electric light with five parts which appears to work perfectly but which is expensive to manufacture. B, who is an inventor also, takes up the problem and succeeds in cutting down the necessary number of parts to four. Now if it happens that B's device is equal in every respect to A's, or superior, B has invented a valuable improvement and if no one else has invented the same thing before, he is entitled to a patent for the improvement. If, on the other hand, the simplified device of B is found to be less efficient than the light of

* Such practice is now in disrepute.

A or if it has less utility as a result of the fewer parts, B's device is not regarded as an improvement over A's and is not entitled to a patent. The mere omission of a necessary part is not an invention but the substitution of a new part for several other parts, making fewer parts and equal or better work, is an invention. Some of the greatest inventions are of this type.

Invention Depending on a New Form for an Old Shape. — It may happen that the essential principles of an invention may be incorporated in a new form so that a fewer number of parts are necessary for equal results. Unless these conditions are produced by the new form, a mere change in shape for alleged convenience or in an attempt to get around a patent is not an invention. To be an invention, a change in form must produce the same or better results with less parts than before. For instance, A invents a battery with a container and the positive and negative plates in the same container. Now, if B tries to obtain a patent for the same thing with the exception that he makes the container out of a material which will act as one of the plates and as a result the apparatus is made more portable, less expensive, and equally efficient, he is entitled to a patent for his improvement, but if B's device is more expensive, less efficient, or not equal to A's device, he is not entitled to a patent for the mere change in shape. Again, suppose that while A's plates were round, B made his square. Unless B could prove a distinct advantage by this change in shape, he would not receive a patent for this feature. These examples are taken without respect to other limitations. Similar principles apply to many other cases.

Invention Depending on a New Arrangement of Old Parts. — The desired simplification may sometimes be attained by a change in the arrangement of the parts,

but such a change is not an invention unless a distinct advantage results or unless the parts are reduced with the same result. For instance, A invents a gas engine with an interior rotor. B then changes the position of A's parts and makes the outside part of the engine revolve while the inside remains stationary. Now, if the device of B has distinct advantages over the device of A, he has invented a patentable motor, but if, on the other hand, his motor depends entirely upon A's and has no points of superiority, B has not invented a patentable improvement on A's invention.

Improvement Consisting of an Addition. — In some cases the addition of a part or parts may mean the difference between the success and failure of an invention. Again, an addition of parts may merely make the device work better. In either case the new combination is patentable if a distinct advantage results, and the improvement is deserving of a patent. If the addition is merely superfluous, it does not deserve a patent. Thus, the addition of air-cooling flanges to an air pump was an improvement over the ordinary pump and was an invention because the new combination possessed the distinct advantage of greater efficiency, nonheating, and a few other less important items.

Improvements of Several or All Classes Applied to One Invention. — It may happen that the combined use of one or more of the foregoing classes will be the solution of a perfected invention. This is true particularly in cases where the original invention is very complicated or crude.

Piracy. Getting Around a Patent. — Certain inventors have found it profitable to devise means for getting around a patent. The case of safety razors previously discussed is a good example of this. As soon as the first inventor receives his patent and markets his invention successfully, a number of other inventors at

once begin an attack of the same problem from different points of view. Some may even utilize all of the original principles in some such manner as has already been outlined, while others will try for the same result with different means. The chief object is to accomplish the same result without infringing the original patent. The further object is to devise means which will be better than the original means in addition. The immediate result of successful attempts are intense competition, often lawsuits, and other forms of business warfare. As examples of successful attempts, the cases of the phonograph and the gramophone, the roll and the flat film, the rotary and reciprocating machines, the various flat and rotary devices, as well as countless others, are worthy of note. The business warfare which sometimes results is very expensive to the parties concerned and one or the other may be gobbled up by the stronger company.

The only form of thus getting around a patent proposition which is not commendable is out and out piracy. Such piracy may take very serious forms so naïve that ordinary thefts are not crimes in comparison. From the records of certain trials and interference proceedings it appears that unusual methods and fraudulent practices have been adopted at times. Spies and detectives have been employed to steal the secrets of one person or company, employees have been bribed, the inventor has been defrauded by elaborate schemes, and so on. These cases are not fiction and a study of patent matters will show many such cases.

One of the commendable features of the many classes of patents which get around the original patent is that the possibility of complete monopoly of an art or a part of an art is thus made almost impossible. The public is thus benefited by the competition and the

ultimate cost is lessened. Some may not agree with this viewpoint, particularly the owners of such original patents as have been mentioned, but it is nevertheless a rational viewpoint. The cases in which the original patentee is wronged and the others are successful are regrettable. Similarly, the cases in which valuable improvements are stifled by the owners of the original patents of scope, thus retarding progress for personal profit, are likewise not commendable. In fact, there is little choice between the two, except that the former is less legal than the latter.

Prolonging Monopoly. — This is a very lucrative field of invention. Large corporations employ inventors for this purpose. The idea is to extend the monopoly enjoyed at the present time beyond the expiration of the present patents by making improvements which will supplant the old forms. As an example we might mention the recent timely introduction of the hornless phonographs at just the time that the main phonograph patents expired.

The Fields of Invention in General. — The vast unlimited fields of invention have only been partially covered in this chapter. It is worthy of note that there is no field of human activity in which there are greater opportunities, larger rewards, and more lasting success. The most trivial thing is worthy the attention of an inventive mind and the most intricate problem is also possible of solution. Nothing is so small or so great that inventors cannot succeed in accomplishing a desired result; nothing has been invented which cannot be improved; and nothing is impossible to the collective inventive mind.

It seems necessary, however, to warn inventors against spending time and money on unprofitable pursuits. The things to avoid may be summed up as follows:



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Don't rely upon "lists of inventions wanted." They are usually good lists of things not to invent.

Don't enter fields in which there is already an intense competition. Strike out into new paths.

Avoid reinventing things which have been patented before.

Don't patent an invention which is a step backward in the art.

Ascertain the probable demand and salability before attacking a problem. Many meritorious inventions fail because of the limited sales which are possible.

Study the public need and never go ahead without this precaution. The public is the ultimate purchaser and supporter of all patented inventions.

Don't enter fields about which you are ignorant. If necessary, learn everything possible about the art before starting out.

Never become discouraged or allow your actions to be retarded by the poor advice of others.

In short, make sure that the object is worth while, and then go after it.

Design Patents. — Generally speaking, a design patent is difficult to dispose of in itself unless it has been ordered before it is applied for. It generally sells for a moderate sum, but since it requires less effort than the average mechanical invention a good designer may earn a snug competence from prolific activities in this field. The main requirements for a design appear to be novelty and elegance, in short, an appearance that "takes." That a design patent may be very valuable is a demonstrated fact. The design patents for the prism shade used extensively in electric lighting is a good example of this.

When litigated the merits of two or more designs are decided mainly upon the consideration of whether or not an average purchaser could perceive the differences in design.

CHAPTER VI

PRELIMINARY STEPS. REDUCTION TO PRACTICE. PRECAUTIONS. THE SEARCH. PATENTABILITY

Reduction to Practice. Precautions. — After an idea has come into the mind of an inventor the next step should naturally be the carrying out of the idea. This does not necessarily mean the immediate making of a full-sized model or the hurried expense for models without regard to detail and workability, but it does mean that the inventor should proceed with all possible diligence to reduce the idea to practice. Indeed this reduction to practice is the stumbling stone for many inventors.

As long as the idea remains an idea it cannot be considered as an invention. It is a well-known fact that many persons conceive valuable ideas and never have enough initiative to reduce them to practice or to patent the invention. How often have we heard the exclamation of surprised reproach, "Why I thought of that long ago," upon seeing some new invention? Of course there are persons who will claim credit for inventions after they hear about some one else's success, in spite of the fact that they may never have heard of the invention before. Then, too, some people think that the mere knowledge of the need of a certain invention constitutes inventing the practical means for accomplishing the needed result. Thus, we hear of this or that person claiming to be the first inventor of some invention after others have developed and applied it to commercial purposes, but where are the proofs? There may even be good grounds for such claims in some cases, but of what use are they? Or again, contests may be used in a very

few cases to endeavor to regain part of an already lost idea and to enjoy at least a part of the benefits.

The Would-be and the Actual Inventor. — The following excerpt from the decision of Mr. Justice Robb, of the Court of Appeals of the District of Columbia, in *Schmidt v. Clark* (138 O. G. 768) may be commended. Discussing priority of conception of an invention and diligence in reducing to practice, he says:

“A would-be inventor frequently has a nebulous and general idea of a result which he wishes to accomplish and possibly a general idea of means to accomplish that result, but, being unable to give his ideas practical form, allows them to slumber. Upon learning that another has successfully worked out such ideas, the mists of uncertainty are immediately dissipated, vagueness takes definite form, and the would-be inventor becomes in his own mind the actual inventor and acts accordingly. The danger and opportunity for fraud or mistake in such cases are so great that the proof should be very clear and very convincing to warrant an award to the dilatory party.” — *Scientific American*.

In addition to the foregoing cases, an inventor should always be prepared to prove his own case and to defend his invention from others who may have legally or illegally anticipated him. He must prepare to defend his invention against possible contests. The better prepared an inventor is, the less liable he is to such difficulties.

Reduction to practice constitutes the grounds upon which a very large number of suits are based and upon which one or the other of the parties concerned generally depends for success.

The present patent laws do not dictate or censor the exact methods which should be pursued to reduce an invention to practice. The inventor may immediately work the idea out to details or he may work only with the general principles of the invention. The inventor may make a model, or a full-sized machine. The model

may be used immediately or later. The model may work, or *vice versa*, and so on. It does not matter what *method is employed, provided the inventor uses all the diligence possible to disclose the completed invention to the public at the earliest possible date after its original conception.*

In some cases this may mean the necessity for quick action while in others conditions may force a wait of many years. It makes little difference how long an inventor may have had a general idea of an invention in the case of a contest, if his opponent reduced it to practice in a legal manner before he did. Again, although an inventor may have actually reduced his invention to practice before his opponent, he must be able to prove his priority in order to win the suit.

Consider another case. It frequently happens that an invention is never actually reduced to practice before applying for the patent. Now, in case two inventors are found to claim substantially the same invention at about the same time and neither has actually reduced the invention to practice, other considerations may be substituted. Thus in a recent decision an inventor lost his right to the invention merely because he delayed the filing of his application. As the case is remembered, the loser had actually shown that he had conceived the idea earlier than the opponent had but that instead of applying for a patent at once, he had spent some time in endeavoring to find out if the invention was new. In the mean time his opponent conceived the idea and immediately applied for the patent. The two applications were put to a contest and the latter won because he had used greater diligence to make the invention public than the other inventor.

Formerly, the filing of a caveat was a good protection in many cases, but since the laws relating to caveats

have been repealed it is necessary to exercise greater diligence in developing an invention.

Only a portion of the possible cases have been mentioned but these examples should suffice to show the importance of a diligent reduction to practice. Regardless of the individual method used precautions should be taken in order to prove a case against possible suits.

Many methods and schemes have been employed for this purpose by various inventors and a number of these are given below.

1. If models are made, bills of material, receipts for labor, dated vouchers pertaining to them, and other records should be saved.

2. All correspondence with any persons or companies relative to the invention should be saved.

3. Sometimes inventors write out a formal description of the invention, seal and mail it to themselves. The idea is to obtain the nonrefutable postmark date on the description without in fact disclosing the matter to another person. Special forms in which the envelope forms a portion of the description, making the whole in one piece, have been made for this purpose and have been placed on the market. To be of value, it is necessary that the mark be upon the papers and not upon a separate envelope.

4. An application may be made out and sworn to before a notary and then filed away as a record.

5. The inventor should disclose the idea to one or more responsible persons of known integrity whenever possible, the idea being to have an undisputable witness or witnesses to rely upon.

6. A letter written to the Commissioner of Patents and stating that the writer has invented a new and useful invention giving the title and asking for a copy of the rules of practice will be returned with an indis-

putable date stamped on it together with a stamped notice that no record has been kept of the letter at the office.

7. Photographs of the model, tests, or other subjects of importance can be taken and dates of development recorded. It is necessary to have trustworthy witnesses.

8. Sometimes in making a model, the various parts are ordered made at several shops and the parts then assembled. Records and parts should be saved and models dated.

There are many other details which are useful. There is of course only a very small percentage of cases in which such proofs are actually needed, but it is always well to be prepared.

The Search. Patentability. — Practically every inventor finds that at some time or other some other bright person has thought of the same thing that he now proposes to patent and as one inventor aptly stated it,

“I have often found that persons who are now dead and persons who lived hundreds of years ago have stolen my ideas” — the idea is found to be old.

The inventor may never have heard of the invention before, and may have worked out all of the details without ever seeing the old invention, but that does not mean that the invention is new. He may even blindly apply for a patent or be led into applying for the patent by an attorney, but that does not mean that the invention is new. The only positive method of finding out whether or not an invention is new or anticipated is to duplicate the methods of the examining force of the Patent Office by making a preliminary search.

This preliminary search does not mean the mere opinion of the inventor or an attorney, or a partial

inquiry to ascertain the novelty of the idea, but to be of actual and positive value it must be as thorough as that of the Patent Office. The mere fact that no similar invention has been marketed or patented in recent years is no indication that the invention is new. Some other person may have anticipated it years ago and never actually marketed it.

The primary purpose of a preliminary search is to ascertain the novelty of an invention. Secondary objects are to avoid unnecessary expense in case the invention is found to be anticipated, and to learn of previous attempts at the same object with a view to avoid former defects and failures.

A preliminary search is therefore a very wise precaution. There are, however, a few drawbacks to this method.

It is apt to be incomplete. Time is taken. There is a possibility of others learning of the invention who may use such knowledge to the inventor's disadvantage. It may be argued that the search is superfluous since the examiner will cover the same ground and since amendments can always be made. These disadvantages should not be over-valued.

Inexperienced inventors are often misled by offers of free searches by attorney companies. Some companies even go so far as to print elaborate coupons and certificates. While some of these so-called searches are perhaps partially carried out, they generally consist in an optional opinion and a request for a fee. Some concerns make a practice of sending out reports of patentability before any search has been made and if any is really made it is done after a retaining fee has been paid. The various tricks employed in this respect as inducements are many and intricate and too much care cannot be taken to avoid such concerns. Even the

concerns which make such offers admit their uselessness by advising what they call a "special examination," which is in reality the search which the inventor thinks the free opinion offered and for which of course a fee is charged. Such concerns should be avoided with the same care that loan sharks should be shunned. The various certificates, guarantees, etc., are worthless and merely used as bait for the unsuspecting.

A real search cannot be made free for the very reason that it involves time and expense. The legitimate price for such a service is from \$5 to \$10 or more depending upon the actual difficulty of the search. A competent searcher will look through the records of the United States patents and will send copies of all of the nearest patents to the one under examination, to the inventor, together with an explanation and opinion. Even this kind of search is incomplete, in that only United States patents are considered, while the examiners in the Patent Office will reject a case on references from foreign patents and publications. For most of the ordinary cases, of course, a thorough search of the United States patents will suffice, but unless it is thorough it affords no more assurance than none. There are many cases on record in which the application has been rejected when a hurried preliminary search either showed no references or else the reference was noticed and not understood or explained.

To obtain a really exhaustive report as to novelty requires a complete search of all records in duplication of the patent examiners' search and since this is difficult and takes much time, it is expensive. For instance, the complete examination into the novelty of even a simple invention, particularly if it is of the common improvement type, would require an expenditure of from \$25 to \$50 or more while difficult cases would require greater

expense. Of course such an examination is very valuable and is a good indication of the real novelty of an invention.

The value of a search, then, depends upon its thoroughness. It is a well-known fact that a few attorneys make a practice of withholding the facts about the novelty of an invention from their client for the purpose of obtaining the fee from an improvement patent. It is generally easy to obtain one or two claims covering a few details of an invention or as the phrase is known, "to put it through the Patent Office anyway."

A search may often discourage an inventor from filing an application because he then sees that only a limited scope can be obtained in his claims on account of the prior art. Some inventors believe that it is best to work out all of the details of an invention without reference to prior work in the art in order to obtain an independent method of attack which is not possible to so great an extent as when the prior work is studied. On the other hand, the complete knowledge of prior work is of great value to many inventors.

The search, then, to be of real value, should be complete and should be made by a competent person. A digest from a decision of the commissioner of Patents in 1897 (Com. Pats. re J. Wedderburn & J. Wedderburn Co., 81 O. G., page 159, in disbarment proceedings) is given below. Its significance is evident. (See also digest in appendix.)

Preliminary Search — Proper Search. — In order to disclose references that may exist in the records of the Patent Office which are accessible to the public, it is necessary that the search be made by a competent person skilled in this line of work, able to recognize a reference when he sees it, that this expert searcher take sufficient time to fully understand the invention on which he is making the search, and that he take sufficient time to make a thorough and com-

plete examination of all classes of invention that may reasonably be supposed to have any bearing upon the invention.

Same — Same — Duty of Attorney — Close References Should be Cited. — It is the duty of an attorney to report the result of a search fully and correctly to the inventor. When references exist which approach the invention so closely as to throw doubt on the advisability of taking out a patent, they should be called to the inventor's attention, even though they do not completely anticipate.

As the following statistics show, nearly twice as many applications are filed as are allowed; proof that more care should be taken with the preliminary steps.

PATENT OFFICE STATISTICS

The following is a statement of the business of the office for the year ending December 31, 1912: *

Number of applications for patents.....	68,968
Number of applications for design patents.....	1,850
Number of applications for reissue patents.....	158
Total.....	<u>70,976</u>
Number of disclaimers filed.....	15
Number of appeals on the merits.....	1,732
Number of patents granted, including designs.....	37,573
Patents reissued.....	158
Total.....	<u>37,731</u>
Number of patents expired.....	20,883
Number of patents forfeited for non-payment of final fees.....	7,494
Number of patents allowed awaiting final fees.....	13,303

The total number of applications filed at the Patent Office in seventy-five years, 1837-1912, was 1,926,009; number of original patents, including designs and reissues issued, 1,106,235.

The receipts of the Patent Office during the year ending December 31, 1912, were \$2,118,158.30, and expenditures, \$2,022,066.11. Receipts over expenditures, \$96,092.19. Total net surplus to December 31, 1912, \$7,160,017.95.

* Abridged.

It is advisable to have a trusted expert to attend to this part of the preliminary steps and the inventor himself should be able to attend to this search when necessary or at least to understand the references cited. Then, too, there is the possibility, which is not to be overlooked, for improvements in the new invention from suggestions obtained from older attempts.

Such a search cannot include an examination of pending applications and for this and many other reasons it is advisable in some cases to apply for the patent at once.

It is regrettable that the inventor has not an easy means for conducting the search himself and that it is necessary to go to Washington for a really thorough search of the records or engage an attorney. To be sure, a limited search can be made by means of an index and a file of the Official Gazette for each year and such a search is satisfactory in some cases, but experience shows that it is not sufficiently reliable in itself and may even be misleading.

A classification index can be obtained from the Patent Office for the nominal sum of ten cents and ten cents for supplements containing amendments which may be of assistance in some cases.

Another cause of an incomplete search is the difficulty in finding references of certain classes which are distributed in out-of-the-way subclasses on account of their titles, but which could be grouped together with other titles in one class. This distribution causes errors on the part of patent examiners in some cases as well as on the part of preliminary searchers.*

Patentability. — The exact question of patentability is one which bothers nearly every inventor. It is a question which cannot generally be decided off-hand and which involves a different point or points in nearly every case.

In general it may be said that some kind of patent can be obtained if the invention embodies novel details re-

* The Patent Office is now revising and indexing all of the patents which have been issued. The work is more than half completed and when done it will prove of great value to inventors. The immediate effect will be to give each patent a greater validity upon its allowance.

gardless of whether the main idea is new or not and indeed the majority of the patents issued appear to be of this type. The inventor may believe that he has invented the main principle as well as the details and that the patent covers the principle as well as the details or detail but in many cases the invention is limited to a relatively unimportant detail. To the inexperienced inventor it is difficult to understand how a patent application can show a complete machine and really only protect a small part. Even inventors with some experience are bothered about the subject of patentability and the scope of a patent. It is one of the objects of this book to make these points clearer. It is, of course, impossible to include all of the possible cases of patentability but a few of the main points will be found in Chapter VII.

The inventor should look further than the mere question of patentability and should also ascertain the question of commercial utility, actual novelty, and practicability, before spending time and money upon an idea. Contrary to a mistaken belief, the mere fact that a patent is allowed is no indication that the invention is valuable or, in some cases, that it is even new, except in a few details, much less that the invention is practicable and of commercial utility. Then, too, there is a possibility that the patent is not a protection against infringement or piracy. All these points require attention.

CHAPTER VII

PATENTABILITY AND PRACTICABILITY

WE have already seen that some kind of a patent can generally be obtained on an invention even if the main principle is found to be old. In Chapter V the fields of invention were discussed and a few cases of patentability considered. The actual question of patentability is one of great difficulty and one which can only be decided after protracted suits in the courts in a number of cases. In fact this uncertainty of patentability and the protection which can be obtained is a grave problem at the present time. Some pessimists even go so far as to say that all patents are worthless until they have been proved in the courts and that a patent is merely a license to enter into a series of lawsuits.

The question of patentability is of the greatest importance for the very reason that it decides whether an invention is patentable or not and also decides the value of an invention.

Since a majority of the inventions which are patented relate to combinations, a large part of which are merely new uses and arrangements of old elements, a few decisions relating to such inventions are of importance to an understanding of the patentability of such combinations.

In *Rogers v. Ryer*, 10 O. G. 204, it was held that,

It is not inventive to use an old machine for a new purpose. The inventor of a machine is entitled to the benefit of all uses to which it can be put, no matter whether he conceived the use or not.

Thus, if an inventor patents a kitchen cabinet, for instance, and others apply the same principles to a

filing cabinet, the inventor of the kitchen cabinet can obtain a royalty for the new use of his invention. All of the examples, of course, depend upon the supposition that the patent is protective and sufficiently broad as to include the new use.

In *ex parte* Gross, 10 O. G. 739, it was held that,

The change of location of an element in a combination where that change produces in substance no new combination nor a new operation is not patentable.

Thus, if A invents a box with a cover on the top and B puts the cover on one side, B cannot patent the change unless there is a new operation, since it is evident that there is no new combination.

In *Asmus v. Freeman*, 86 O. G. 231, it was held that,

Where the improvement and consequent public benefit are very great, very little evidence of invention is required.

The success of simple inventions and the frequent support of their validity in the courts are further proofs of this principle.

In *ex parte* Scriven, 57 O. G. 1128, it was held that,

A conceded difference of construction between the device claimed and the reference cited, together with a clear advantage as a result of it, constitutes patentable novelty.

Thus, a change in the construction which has a decided advantage is patentable.

In *West Mineral Wool Co. v. Globe Min. Wool Co.*, 77 O. G. 1127, it was held that,

Simplicity does not negative invention when a new and useful result is accomplished.

This principle is self-explanatory. It is, however, necessary to prove that a new and useful result is accomplished.

The following items relate particularly to public use. The public use of an invention more than two years

before an application for a patent is filed makes it invalid. The paragraphs are self-explanatory.

Jenkins, C. D. 1873, p. 141.

Any use which, viewed with liberality, can be regarded as experimental, should be so held.

Kelleher *v.* Darling, 14 O. G. 673.

Public use, no matter how limited and whether with or without the knowledge or consent of the patentee, more than two years before applying for a patent, is fatal to the patent.

Brungger *v.* Smith, 62 O. G. 1513.

The two years of "public use and sale" relate to the complete invention only, and have no reference to use for experimental purposes.

The following relate to subject matter and utility. These are quite clear and worthy of note.

Ex parte Smith, C. D. 1873, p. 144.

Perpetual motion devices cannot be made the subjects of patents.

Ex parte Gerson, 11 O. G. 244.*

New arrangements of printed matter on tickets, circulars, pads, books, etc., are not the proper subjects of patents.

Fuller *v.* Yentz, 11 O. G. 551.

A patent will not be sustained if the claim is for a result, a principle, an idea, or any other mere abstraction.

Ex parte Ackert, C. D. 1872, p. 47.

Mere curiosities of invention, not having any intelligent purpose, are not useful in a patentable sense and are not patentable in a legal sense.

Converse *v.* Cannon, 9 O. G. 105.

All that the law requires as to utility is that the invention shall not be frivolous or dangerous.

Ex parte Sanche, 80 O. G. 185.

The degree of utility is immaterial in determining whether a device is patentable.

* When great utility results, an exception is sometimes made.

In addition to the foregoing, patents for immoral devices, perpetual motion schemes, systems of carrying out business, and abstractions are not patentable.

The following cases are cited concerning anticipation.

Topliff v. Topliff, 59 O. G. 1257.

It is not sufficient to constitute anticipation that the device relied upon might by modifications be made to accomplish the function performed by the patent in question.

Ex parte Rouse & Stoddard, 7 O. G. 169.

A rejected application will no longer be considered a bar to a new application for a patent for the same invention.

Truman v. Carvill Mfg. Co., 87 Fed. Rep.

Trade magazines, published and copyrighted, in general circulation and found in public libraries as well as scientific libraries, are "publications" in the sense of the patent law.

National Electric Signaling Co. v. United Wireless Telegraph Co., Circuit Court D., Maine, Sept. 21, 1911, 189 F. R., p. 727.

For a publication to constitute an anticipation of a patent, it must describe the invention in such full, clear, and intelligent terms as to enable persons skilled in the art to reproduce the process or article without assistance from the patent.

The following relate to miscellaneous features.

Ex parte Woodbridge, 15 O. G. 564.

An invention may become abandoned by a wilful or negligent postponement of the assertion of the inventor's rights or by an attempt to withhold the benefit of his improvement from the public until a similar improvement is made and introduced by others.

Western Electric Co. v. Sperry Electric Co., 65 O. G. 597.

There is a material difference between the abandonment of inventions and applications. The first gives the invention to the public and is irretrievable. In the second case the application may be renewed or a new application may be filed.

Gill *v.* Wells, 22 Wall 28.

Equivalents are such ingredients as will perform the same function as the one described and which were well known at the date of the patent as proper substitutes for the ones actually described in the patent.

Union Met. Cartridge Co. *v.* U. S. Car. Co., 11 O. G. 1113.

An inventor, without describing equivalents in a patent, is entitled to be protected in their use and to treat their use by others as an infringement.

Sayre *v.* Scott, 63 O. G. 1818.

Two things are the same in the sense of the patent law when they perform the same function in substantially the same way and accomplish the same result.

Page *v.* Ferry, Fed. Cases, No. 3124.

If the principle of an invention is pirated, there is an infringement.

See also:

Wells *v.* Curtis, 66 F. R. 318; 74 O. G. 495.

Griswold, 78 O. G. 482. (Aggregation.)

Snyder, 78 O. G. 485. (Difference between aggregation and combination.)

Andrews *v.* Thum, 67 F. R. 911; 72 O. G. 899. (Article of manufacture.)

Kilbourne *v.* Bingham Co., 50 F. R. 697; 60 O. G. 577. (Change of materials.)

Ives *v.* Hamilton, 92 U. S. 426; 10 O. G. 336. (Change of the parts.)

Butler *v.* Steckel, 137 U. S. 21-30; 52 O. G. 1090. (Change in shape.)

Pencil Co. *v.* Howard, 20 Wall. 498; 7 O. G. 172. (Idea not patentable.)

Weir *v.* Norden, 125 U. S. 98-108; 43 O. G. 753. (Lack of invention.)

Hill *v.* Wooster, 132 U. S. 693; 50 O. G. 560. (Invention lacking.)

Forncrook *v.* Root, 127 U. S. 176; 43 O. G. 984. (Prior use.)

Glue Co. *v.* Upton, 97 U. S. 3. (Result not patentable.)

There are a large number of similar cases and the number is constantly increasing. Some of the decisions are directly opposite to others in treating substantially the same points. (See also the pamphlet on patent laws issued by the Patent Office.)

There are, then, several points which determine the patentability of an invention. The reason for non-patentability may vary from inoperativeness to lack of invention generally. Each case presents its own points so that no set rules can be set down except general statements based upon cases which have already been decided.

In addition to the numerous rules and laws which determine the patentability there are a number of unwritten laws in actual patent practice. The allowance of patent claims depends to a large extent on the personal opinion of the examiner who cares for the case as well as on the skill of the person who prosecutes it.

Subjects Unpatentable

A mere idea, a mental conception alone, is unpatentable because by itself it is not accomplished.

So is a scientific principle, a property of matter or a law of nature because no one can be given the exclusive right to a natural truth.

You cannot patent a result — running water, for example — but you may be able to patent means for producing running water.

Neither can you obtain a patent by aggregation — combining old things which do not co-act; or by duplication — using two shovels side by side, for instance, instead of one.

Nor can you patent an adaptation — the use of a razor to sharpen lead pencils.

If you only change the form, size, material, proportions or arrangement of something already existing, you cannot patent the change; if you accomplish something else by the change you may be able to get a patent.

You cannot patent a system which does not possess novelty and utility, you cannot patent a mere transposition of parts which

accomplishes nothing new, you cannot secure a patent for an addition which merely makes a device convenient to transport — as by putting casters on a sectional book case, and you cannot patent a device which may be injurious to public morals.

Or if you do get through the patent office by errors of the examiners your patent will not hold water in the courts.

“Utility and workability are as important as is patentability.”

The probable commercial worth of the invention is difficult to ascertain in most cases and there is a tendency to overestimate its value on the part of the inventor. The value depends to a considerable extent upon the demand and since this demand can be found by comparison with other successful patents, an approximate idea can be arrived at.

For instance, suppose it is found that an invention is novel and patentable, but that it is limited to an improvement over a former patent. Now, if the prior patent is basic in its nature and covers the employment of the new invention, there is practically only one possible manner in which it can be of value, namely that it must be of such importance that the owner of the other patent will either buy or acquire a royalty contract in it. In cases where the earlier patent is not marketed the opposite arrangement can sometimes be worked out. Now, if the improvement is not marked in the new invention and does not accomplish such a great object that the other patentee will find it essential or that it will make an inoperative patent operative, its utility is sure to be very slight.

Every investor and inventor should thoroughly examine the patentability and utility of an invention before going to much expense or even applying for the patent. The idea should be more than a mere crudity — as near perfect as possible or desired. See that it is free from fallacies — prove that it does the work. Then

prove that it will continue to do the work. It is also well to ascertain the expense which will be required to promote the invention to success and to take steps to see if it can be supplied or obtained, just as in any other business undertaking.

The manufacturer should take the greatest caution in protecting his industry with patents and to his credit it may be said that he generally does. He should foresee possible competition and, if possible, patent every possible form of device for the purpose which he or his employees can invent. Even a single feature may make a patent valuable if it covers a desirable commercial feature. All processes, machines, or blanks used in the manufacture should be examined to see if they are patentable or can be improved to make them patentable. Aside from the manufacturing point of view, the possession of good patents may greatly increase the value of the capital stock or serve as a means for increasing the capital stock.

Again, if a patentable invention is worked out and not patented, a competitor may patent the same and sue the originator for infringement. The manufacturer should not neglect to patent an invention or aid an employee because of his poor judgment or lack of knowledge in such matters. The mere fact that old machinery is used in carrying out a new process does not render it unpatentable. The process is independent of the apparatus used, and may only embrace a new mode of using old machinery which is already in the plant. The possibilities in licensing or selling such patents will be discussed later.

It is no secret that many manufacturers dislike patents. For the most part they are of the class which is forced to pay high royalties for the use of the machinery in their plant and to which they have no title in

many cases, or of the class which is restricted in its operations by patents. Or, again, many manufacturers invest large sums in systems and machinery or even in patents only to be forced to abandon them for other and more improved methods and machinery within a small space of time. The failure of certain automobile manufacturers is traced to this cause by some experts. The difficulty is that the manufacturer is not alive to his possibilities in the field and does not keep in touch with the new patents or try to develop his own improvements until it is too late and another has captured the trade. One manufacturer even put himself on record as saying that patents hurt business. On the contrary patents promote business by their very nature. They are intended to and do protect industrial property.

Nearly every reader has doubtless heard the tale of woe of some manufacturer or other who has been bested by competitors. He does not realize until it is too late that the tables could have been turned with a little foresight. Every manufacturer is open to strenuous competition at the present time and even patents are not exempt. It is necessary to constantly develop new improvements to keep ahead of the times and since patents are the nearest thing to a perfect armor against the shots of competitors they should be procured whenever possible. There are hundreds of good patents, which could be obtained, begging for a purchaser, and if the manufacturer cannot develop his own inventions he can buy them already developed. Look around a bit. Pick out the good ideas and have them patented. Then thank this book for the suggestion.

It is not necessary that an invention be complicated or of the wheel-and-gear order to be patentable. Some of the most successful patents are for apparently trivial inventions. Without doubt, many patentable ideas

occur to many persons during their daily pursuits but are either forgotten or dismissed as unpatentable on account of the simplicity.

Such action is unnecessary and may mean the loss of a snug fortune. There are many cases which are of record in which the patentee just barely escaped this stage through an accident or the good advice of real friends. The readers are doubtless familiar with the story of the telephone patent. The inventor, Bell, had been working for some time upon the invention and had shown the partially perfected apparatus to some friends. He had practically decided for himself that the device was not patentable and it was only through the advice of his friends that the patent was applied for. As it happened, an interfering application was filed on the same day at a later hour by another inventor, Gray. The fame and fortune which eventually resulted from the telephone was thus diverted to Bell by the merest slip of luck. There are many other similar cases. An inventor should therefore not miss the patentability in anything which he may devise, and before finally deciding against the idea, it is well to consult others who may be undoubtedly trusted.

Indeed there are numerous instances of patented subject matter which a layman might hardly consider patentable. It is well established that simplicity does not negative invention. A mere improvement over existing conditions may mean an enormous commercial possibility. There are many subjects for invention which are but little understood. Thus improved systems and methods for accomplishing old work are patentable subject matter. Patents for the simplest improvements have been repeatedly upheld.

When it is considered that the patent laws provide immense opportunities to manufacturers and inves-

tors, it is surprising that more of these persons and concerns do not avail themselves of such possibilities. Without doubt there are many improvements and systems or methods which are in operation to-day that could be readily protected by the patent laws. A manufacturer may thus prevent competitors from using his process or machinery to accomplish similar cost reductions and the like. Then, too, practically every employee would be able to suggest valuable ideas or invent machines if the matter were only presented to him in the right light and with some incentive for reward. The manufacturer would undoubtedly find such a plan extremely profitable and he might even be surprised to find that several of his employees already had ideas which they were afraid or reluctant to disclose to him before.

The possibilities in this matter are practically unlimited and should be developed.

Patenting Basic Inventions Which are not Practical.

—If an invention is not practical from the commercial viewpoint, it may still become a valuable patent provided that the patent is broad enough to include commercially desirable forms which may be developed later. This statement should be considered carefully, however, since it may easily be misunderstood.

Last Step Rule

A slight step in advance which turns numerous previous unsuccessful solutions of a problem into success is patentable. When weak claims come under this classification they immediately become strong.

CHAPTER VIII

APPLICATION FOR A PATENT. PROSECUTION

AFTER the inventor has carried out the preliminary steps and has arrived at the point where it is advisable to apply for a patent immediately, he may either engage an attorney to prepare and prosecute the application or attend to the same himself, preferably the former. The matter of selecting a competent attorney depends upon the judgment and circumstances of the inventor. If a trustworthy attorney is secured, the inventor will have comparatively smooth sailing, the chief item being that a full and complete description and drawings or models should be disclosed and placed at the attorney's disposal. If an unknown attorney must be employed, accurate references should be secured (not mere printed references in pamphlets), and steps taken to insure confidence in him.

At this point a retaining fee is generally asked for, together with the first government fee of \$15, but some attorneys wait until after the papers have been drawn up and signed. Avoid the signing of contracts or attorneys who give contracts to refund money, guarantee, etc., as has already been pointed out.

The papers and drawings should then be prepared at once without any delay. When a draftsman is employed to make the drawings or when the attorney attends to this detail, care should be taken to see that it actually illustrates the invention accurately. If it does not, do not be afraid to say so and to demand an accurate illustration. Some attorneys make excessively elaborate and pleasing perspectives or have them made for

their clients. Don't be misled by any frills, but see that your invention is fully illustrated. It is not necessary to have the inventor sign the drawing and for this reason some attorneys do not send the drawing to the inventor for inspection. Such practice is not commendable and gives opportunity for deception.

The complete application consists of a "specification" which is a complete description of the construction and mode of operation, or a disclosure of a process or compound, as the case may be, the first government fee of \$15, a "petition," asking that the Commissioner may issue letters patent to the petitioner, and an "oath" in which the applicant states that he believes that he is the first and sole inventor of the invention described. Drawings are also required for a complete application in all cases in which a drawing is possible. (Before signing any of the papers sent to you be sure that they are correct and fully describe your invention.)

The manner in which these papers are prepared is of vital importance and a further discussion of the separate items will be found in later chapters. The inexperienced inventor finds it practically impossible to judge of the accuracy and clearness of the papers which have been prepared for him, particularly in the matter of the claims, and unless the attorney is reliable he is at a great disadvantage. The value of the patent depends upon the care and skill with which the papers are prepared. This will also appear more fully later.

Never sign an application in blank or without examining it thoroughly. According to rule 31 this will invalidate the patent and an attorney who would use such a method is unreliable from the beginning. It is a wise precaution to retain a copy of the specification and claims and drawings if possible.

If the papers are found to be satisfactory and are

signed and witnessed and then sent with the fees to the attorney, he sends it to the Patent Office where it is classified according to the numerous divisions and placed on the files for examination. A receipt is then sent to the attorney acknowledging the receipt of the first fee and giving the serial number of the application. This receipt* should be sent to the inventor at once and should be kept by him.

This serial number is merely the consecutive number which happens to come to the application, beginning with number 1 on January 1, 1900. The receipt also indicates the class of the invention. When thus filed the machinery of the law is well started towards the protection of the invention, and it is possible to market the invention with the notice that a patent has been applied for. While this method is often adopted it is somewhat hazardous since it opens the inventor to liability from infringement, contests, and the loss of foreign patents in some countries. In other cases the privilege is abused.

The application is then taken up in the regular order of filing as far as practicable. It reaches the hands of an examiner who cares for it until the patent is allowed or refused as the case may be. The examiner acquaints himself with the application, notes the errors of form, incompleteness, spelling, prolixity, etc., and makes an exhaustive search of the records of this and foreign countries as well as publications to see if there are any prior patents or other references which anticipate the application.

A letter is then written to the attorney stating that the case has been examined, calling attention to errors of form, typography, etc., and stating objections to all the points which he has noted. It is also likely that any

* Recently it has become the practice to point out errors in the drawings at this time.

or all of the claims will be rejected and references cited. It may happen that the attorney has been shrewd enough to file one or more claims which are limited enough to pass without objection. It is generally the claims of the greatest scope which are objected to. The drawing may be found inaccurate or faulty and changes required. It is at this point that the prosecution of a patent should begin.

A patent application may be considered as a form of a struggle with the Patent Office and examiners on one side representing the public and pulling to prevent the inventor from obtaining too much for his disclosure, and the inventor, generally aided by an attorney, pulling on the other end in the opposite direction to obtain the greatest possible protection for the invention. The first action upon the application may take from two weeks or less to two months or more depending upon the condition of affairs in the particular division. Thus some subdivisions are continually in arrears with their work while others are on time and ready for new work. Some of the classes are months behind.

The application is kept secret from the time it is filed until it goes to issue (assuming that it is allowable), and no unauthorized person can obtain access to it. Some attorneys do not inform their clients of the progress of the application. It seems that the inventor is entitled to receive prompt and complete information of the progress.

The Prosecution. — After the first communication is received from the Patent Office it is the attorney's duty to reply to the examiner's communication at an early date and to meet the objections, make amendments, argue against the cancellation of claims, etc. This may necessitate radical changes, the rewording of claims, the addition of new claims, arguments to show that the

examiner's position is wrong, etc. This process may have to be repeated again and again and the successful completion requires skillful treatment. This is the critical point in the success of the application. The examiner is often wrong and again he is often right in his stand. In addition to the regular rules and laws there are countless unwritten requirements.

Matters of form and formalities have to be adhered to, the meaning of references has to be understood, the rights of the inventor have to be insisted upon, and every detail must be handled to the best interest of the inventor. Unless the prosecution is strictly and forcibly carried out in an honest unrestricted manner, the attorney fails in his duty to the inventor. It is often necessary to make as many as six replies to the objections of the examiner, and the prosecution of a case may extend over a number of years. It may be remarked, however, that a number of cases are needlessly prolonged in a useless attempt to secure an impossible patent or in a successful attempt to delay the date of allowance of a patent.

It sometimes happens that the examiner is needlessly obdurate and that he takes an untenable stand. It is further likely to happen that arguments do not change this viewpoint and since a valid patent is desired it becomes necessary to take an appeal. This is a condition of affairs which should not be necessary in the vast majority of cases and which may often happen through the error of the attorney as well as the examiner. Before considering the matter of appeals, a more detailed account of methods of prosecution will be given, particularly for the benefit of those who may still desire to present their own applications and those who may desire to follow the work of the attorney.

In the first place it would be well to study the rules of

practice thoroughly and to obtain a full understanding of patent matters.

Matters of Form. — 1. Formalities must be adhered to in nearly every case but they can be neglected for a time in some cases. (See rule 64 of the Patent Office Rules of Practice.)

2. Typography, errors of typography, etc., are generally specifically pointed out by the examiner and in most cases should be corrected as suggested without delay. It is necessary to indicate the precise point at which the change is to be made, as, for instance,

Line 4, page 2. After the word "because" erase the words, "it revolves," and insert the words, "they rotate" in their place.

Line 17, page 2. Change the word "equivalant" to "equivalent."

Use a separate paragraph for each item to be changed. See also form 27 (in Rules of Practice).

Indefinite Wording. — When the wording is declared indefinite or vague it must be cleared up because the examiner has so many references to cite that a patent specification must be clear and concise. An experienced person will avoid most of these errors to begin with.

1. A reference numeral ordered for a part mentioned in the specification or reference thereto canceled.

There are a number of references which can be cited to support this demand. It is generally advisable not to cancel the reference.

2. Prolivity should be avoided and remedied when pointed out.

Corrections of Drawings. — The examiner has numerous references to support his demand for corrections to drawings, further illustration of details, additional drawings, and other points which are necessary for a complete illustration and understanding of the invention.

The main items to be considered are that the inven-

tion should be accurately and fully described and claimed as far as is possible. There are numerous other detail requirements such as arise in each case and which cannot receive exhaustive treatment in a book of this kind.

It often happens that an application goes to issue in spite of the fact that it is defective in one or more of its parts and because of this fact it is sometimes claimed that the present methods of patent prosecution are loose and faulty. It should be remembered that the value of the patent depends upon a full, clear, and concise disclosure of the invention without any deceptions, reservations, indefiniteness, or other defects.

Amendments are required to be written on separate sheets of paper and should always be clear and understandable. Amendments to drawings are often required, and in many cases minor changes can best be made by the office draftsmen for a nominal fee. All sketches to show desired changes are required to be in ink.

The matter of the prosecution of the claims is perhaps the most difficult part of the prosecution. The reasons for the rejection of claims are often vaguely given or based upon an argument with reference to a combination of points from several references. In cases in which the reasons for a rejection are insufficient a full explanation can be demanded as provided in rules 65 and 66. It often happens that new references will be cited by the examiner in response to amendments and it is necessary that the pertinence of the references should be understood.

A knowledge of patent law is almost essential to an intelligent prosecution of the claims, and the ability of the prosecutor to cite pertinent references in support of his argument is of great importance.

It is an established fact that a reference does not

need to claim an invention if it shows it clearly and this fact will not prevent it from anticipating the new application. In fact, in examining an application, very little attention is paid to the fact that a new application may infringe on other claims, the action being directed to an examination into the novelty and utility of the new application almost exclusively. That is, the government does not examine into the question of whether or not the new application will infringe upon former patents, but merely ascertains that the invention is worthy of a patent. Many people consider this a weakness in our patent procedure since it practically means that some sort of a contest or suit or at least an undisputable after-examination is necessary to establish the validity of a patent.

The mere allowance of a patent, then, does not establish its validity.

The only steps taken to protect prior inventors in regard to the issuance of improvement patents is to refuse patents for equivalents and similar matter which have been repeatedly held as nonpatentable.

The foregoing should suffice to show why a rigorous prosecution of the claims is essential to a worth-while patent. If the claims are properly constructed in the first place there is much less difficulty in securing their allowance, provided, of course, that they claim the new invention to the exclusion of other references. We might classify some of the main methods of claim amendment which are generally employed.

Cancellation. — This is the least desirable in most cases from the inventor's standpoint but in view of nonrefutable references it is often necessary. The indiscriminate cancellation of claims to procure allowance is not commendable. It is generally possible to substitute other claims for the canceled ones, or to

amend the claim to avoid cancellation. Unwarranted complete descriptions in claims are not desirable.

Restriction of a Claim. — It is a general practice to add to a claim in order to secure its allowance. Such an addition is intended to limit the claim to the invention and to exclude the claim from matter referred to in the examiner's objections. This is difficult and receives great abuse.

Rewriting a Claim. — It is sometimes necessary to rewrite a claim on account of prolixity or insufficient description.

New Claims. — It often happens that new and stronger claims are suggested during the prosecution and they are generally filed in place of rejected ones. It is sometimes difficult to secure the allowance of expanded claims and such action may permit the introduction of additional references on the part of the examiner.

Whenever an amendment is made, particularly when new claims are introduced, it is necessary to present an argument in support of the amendment. This is also true when a reconsideration is asked for. The strength of this argument determines, to a considerable extent, the action which it will receive at the hands of the examiner. The mere statement that the examiner is wrong or that the new amendment is thought to place the case in order for allowance without a specific argument logically setting forth the reasons therefor is not sufficient. Indeed there are a number of applications which reach abandonment through such an error.

Responsive Action. — The response to an examiner's communication must take up the points which he brings up and if these are evaded and some other action is substituted the action is not considered as responsive even if it is allowed in some cases and it does not there-

fore act to prevent an abandonment. This principle has been repeatedly upheld and is practically indisputable. Thus, if the examiner directs attention to the nonpatentability of one-half of the claims and the response does not take up these points, treating of other matter instead, it is not responsive. This is only a rather incomplete example of nonresponsive action.

Abandonment. — Abandonment is the bugbear of the inventor and, since in many cases it is unnecessary, it should be avoided. A number of cases reach abandonment through the fault of the prosecutor of the case. Most cases of this kind are due to neglect. Under the present laws it is required that a case must be completed and prepared for examination within one year after the filing of the petition. Abandonment also results from failure to prosecute a case for one year after the date of the last official notice of action in the case. See rules 77 and 171.* Abandonment can be avoided and if unusual delays are unavoidable for some urgent reason a stay can be secured upon due proof. This does not necessarily mean that all applications are allowed within one year after the filing date, since a case can be kept alive over a period of years by responsive actions. In a few isolated cases allowances have been secured a decade or longer after the date of filing. In fact such methods are sometimes employed by shrewd inventors and lawyers for purposes that will appear later.

Divisional Case. Division of Claims. — It is well established that two or more independent inventions cannot be claimed in one application. Thus in an application claims for the specific device and claims for the process of making it cannot both be allowed. See rules 41 and 42. Division is also required in cases in which the claims are of a character which make them

* Rules of Practice published by the Government Printing Office.

belong to two or more classifications or divisions of the office at the same time. Thus division would be required between claims examinable in divisions 1 and 10. Notice of division is generally given in the first communication from the examiner. The courses open are the cancellation of one or the other class of claims or the application for a patent covering the other class of claims. The latter course is generally followed and necessitates the filing of separate applications with separate fees, etc. Division can be avoided by foreseeing it in the first place. The several parts are then prosecuted as separate applications and generally they all issue at the same time. Since a divisional case generally means an increased expense it should be avoided if possible. It is not difficult for an experienced attorney to foresee the necessity for division in most of the possible cases.

Recently the Patent Office has been almost unreasonable in its multiplex requirements for division in some classes. While this practice may facilitate minute office classification it also greatly increases the expenses of the inventor. In fact, as a result, a very small proportion of the divided applications are ever filed and prosecuted to issue. This is not fair to inventors of complex devices.

Omitting the cases of abandoned, forfeited, revived, renewed, and reissued applications, let us suppose that a case has been successfully prosecuted and is ready for issue. A notice of allowance is sent to the attorney or the inventor, with a request for the final government fee of \$20 within six months from the date of the notice. This six months is a distinct advantage to inventors as it allows them to obtain desired foreign patents. This will be more fully discussed later. When the fee is received the case is prepared for issue. At this point some cases can be withdrawn to allow for special contingencies, if the

final fee has not been paid and if the date and number have not been given to the patent, on account of mistakes by the office, or in cases of fraudulent or illegal applications, or in case of interference. See rules 164-166. It is sometimes necessary to withdraw an application from issue for the valid procurement of foreign patents but it is not always possible to do this.

The patent is in the nature of a grant to the patentee, his heirs and assigns, for the term of seventeen years, of the exclusive right to make, use, and vend the invention or discovery, which is given a title, throughout the United States and the Territories thereof. A copy of the specification and drawings is also attached to the grant and forms a part thereof. The inventor or his heirs or assigns then has the exclusive right to the invention for seventeen years, at the expiration of which time it reverts to the public. A patent cannot be extended except by an act of Congress. Copies of the patent are then printed and a digested portion is published in the Official Gazette.*

Much matter has been omitted in this chapter, a part of which will be taken up later. It is not always as easy to obtain patents as is indicated in the foregoing paragraphs and such cases as require appeals, interference proceedings, renewal, reissue, and the like will be considered later.

* The gazette is a very useful publication. Since April 6, 1915 the present Commissioner of Patents has adopted the author's suggestion and a classified index of all new patents is now a part of each issue. This simple improvement enables one to keep up with new improvements in an art at small expense and with a minimum of effort.

CHAPTER IX

PROTECTING AN INVENTION. THE APPLICATION PAPERS

IN Chapter VIII a brief outline of the procedure generally necessary to obtain a patent was given. In the present and succeeding chapters the various details will be taken up more fully.

How Shall an Invention be Protected? — This question must be answered before applying for the patent or patents. Shall a patent for the article of manufacture or the process for making it be obtained? Shall a process or composition of material patent be obtained? Shall a design patent be obtained to supplement the machine patent? Shall two or more patents be applied for or shall the subject matter be vested in a single application? These and other questions must be decided. To be sure the answer is generally not difficult. Again there are cases in which the exact procedure is difficult to determine and for which the maximum protection can only be obtained by filing several applications. In any case, the object is to obtain the maximum protection which is possible for a given invention.

It is advisable to foresee possible means for accomplishing the same object in most cases and to so word the application as to include such means. Then, too, the conditions may make a process patent allowable when a composition or article of manufacture patent would be refused. It is evident that there are several other similar cases which may arise but since similar treatment is given to them, further cases require no attention at the present.

Further objects in determining the proper protection for a patent are to avoid infringing or infringement, to secure the broadest protection possible, and to insure the application against possible attack at a later date.

Suppose, for instance, that an improved loose-leaf book is invented which is of artistic shape and which can best be made by machinery of special design. Suppose further that this machinery is of such a nature that a distinct chain of operations is carried out. The above example, after a search of previous patents, will very likely show the following procedure to be the best policy.

1. Although the article itself possesses some slight novelty, only very limited claims can be secured by this type of patent owing to the prior art. A single patent of this type is obviously too narrow if a substantial and lasting business is to be built up from it. Even if the patent was secured and the book marketed, it would probably not be long before one or more other books similar to it but which would not infringe the narrow claims would appear. The latter might even be almost identical in size and shape and differ in a mere detail.

2.* A design patent can surely be obtained to cover the novel appearance of the book. Such a patent will serve to insure a patent as outlined in 1 by reason of the fact that it is much less liable to be declared invalid in a lawsuit and that it prevents competitors from imitating the exact shape of the book. Then, too, if the patent as outlined in 1 is refused, a design patent will probably be allowed and since the book can be marked patented, the design patent may form ample protection in itself. While it is doubtful if a design patent would be of use in the example referred to, this type of patent

* See Rules of Practice for procedure. Design patents are very simple.

is frequently resorted to for many similar cases, such as display racks, cabinets, and the like. It has the further advantage of being less expensive and easier to procure, but it does not of course protect the mechanical part of the invention. There are a number of patents which are issued for articles of manufacture and the like which might be equally protected by a design patent on account of the prior art.

3. It is quite likely that the machinery used in making the book will be of such a structure as to afford good subject matter for a separate application or applications. Owing to the fact that a large part of all machinery is merely an arrangement of old parts it is not unlikely that a patent of this type can be secured. In addition to insuring and reinforcing patents of the type described under 1 and 2, it is possible that the machinery may be applicable to other operations or other types of books than the one under consideration. If it possesses the latter property its value may exceed that of the other types.

4. It will very likely be found that the chain of operations is novel and patentable as a process or method. This type of patent may be sufficient in itself if it can be secured with sufficient scope. At any rate it serves to support a patent or patents of the other types. Thus, if the article cannot be protected the process patents may serve to protect it. Then, too, the process or machine previously referred to may so cheapen the non-patentable article or the like that a patent of this nature will control the market for the nonpatentable article. The latter case is of frequent occurrence. Thus either the machinery or the process or both may be of such a nature as not only to protect the improved book but to control other books already invented or which may be invented.

5. In a few cases, it may be possible to combine a process and the machinery, or a process or machine with the article as the subject matter of one patent. This is only allowable when the dependence of the two are clearly evident. In any case, it is evident that much depends upon the wisdom of the choice. All of the possible angles of a case should be considered before taking a definite course. No mention has been given as yet to one other form of protection which may in itself or in combination with one or more of the other types suffice. This is the protection which a trademark affords when registered. The many industries which rely partly or wholly to a protected trademark are proof of the value of such protection.

In this connection the practice of needlessly dividing an invention into two or more applications when one is sufficient for the purpose of increasing fees is worthy of note. Such practice is happily not general or extensive and should not be confused with cases in which several applications are essential.

Can an invention be kept secret and protected without a patent? — Probably every inventor has asked this question at some time or other. Generally speaking the answer is *no*, but there are some exceptions. It is obvious that a machine or article of manufacture could not long be kept secret, so the possible cases are narrowed to compositions, processes, and methods. The question is of sufficient interest to receive itemized attention as follows:

Compositions and the Like. — With the present development in the art of chemical analysis, there are only a very few cases in which a compound can be kept secret. For instance, if a man invents and markets a paint with novel properties, without securing a composition patent, perhaps a dozen chemists in scattered parts of the country are immediately engaged in an

analysis of his paint. It is very likely that each of the chemists will be able to report the exact composition of the paint to his employer within a few days. The chemists may even discover means for cheapening the paint or improving it. This should illustrate the folly of trying to keep most compositions secret. It may be further remarked that many concerns keep chemists employed for the very purposes which have been mentioned. It is even possible to analyze and patent the paint referred to above and to subsequently sue the originator for damages as an infringer. An attempt to keep a compound secret is thus made hazardous. It may be remarked that some compositions cannot be patented as is the case with many of the so-called patent medicines and in such cases the *patent* feature consists in some sort of a trademark. Thus a patent for a combination of alcohol, coloring matter, and water, as a cure for consumption and the like would naturally be refused a patent, but Dr. Skinnack's Balmoid can very likely be registered as a trademark for medicines.

Processes and Methods.—It is well known that there are a number of secret processes and methods in existence at the present time. It is argued that it is the wisest course to keep a process secret instead of disclosing it for a short seventeen-year protection. It is quite possible to pursue this course in a number of cases and it is actually done. We might mention the case of a certain process for making artificial opium, a certain process for making a photographic paper, and many other known cases. When it is considered that it would be difficult or hazardous to apply for and obtain a patent for certain processes by reason of the fact that it might be difficult to secure a broad protection and that such protection only lasts for seventeen years, such

practice is perhaps justified. On the other hand, it is extremely difficult to keep a secret and there is a possibility of its loss, theft, or the like. Then, too, if another should conceive and patent the same process, the originators might become liable to suits for infringement. Processes appear to be particularly suited for concealment since they offer nothing tangible, except the product, for others to work on. Methods offer similar advantages. Those who can successfully carry out such a method are better protected than would be possible with a patent. It may be remarked that the cases in which permanent secrecy is possible are very few and that many attempts fail for one reason or another. Again a process might readily yield more profit if patented by reason of the fact that its general use could be licensed at a good royalty profit.

One result of the conditions outlined above is a considerable number of secret formulas and the like which are really of little actual value, or which could be greatly improved to benefit the public if published, or which are really old and well known but valued as secret. For instance, a certain manufacturer of glass was induced to pay a round sum for a *secret* formula for producing a certain colored glass. As matters developed it was discovered that the expensive formula was well known, of little practical use, and obtainable for a few cents in book form, together with much other matter.

On the other hand, there are a few examples of processes and compositions which have been patented but which might easily have been kept secret for a number of years. The Welsbach gas mantle which depends upon an exact ratio of the rare earths used is a good example of this and it is doubtful if others would possibly have discovered the principle if it had not been published.

The Specification. — Regardless of the type of patent considered, the specification and particularly the claim or claims following the specification are the vital and most important parts. To begin with it should be clearly understood that the inventor must *fully and completely disclose* the invention without restraint, reservations, deceitful omissions and the like. This is important both because of the fact that he owes it to the public as a trust and equivalent for the monopoly he acquires and because the scope of the monopoly is limited to what he discloses and claims. It is absolutely essential that the papers be prepared with accuracy, precision, care, and completeness. When the subject matter is of a difficult or complicated nature this becomes a very difficult task. It is a matter of surprise to the author that an attorney is capable of efficient service to inventors of varied classes of inventions. Attorneys who are capable of such services represent a specialized and novel profession requiring unusual skill and capabilities. The accuracy with which this class of attorneys can care first for a simple improvement, next a complicated machine, then an intricate process, and so on, is remarkable, and if attorneys of lesser capabilities fail in some cases it is not to be wondered at. On the other hand, the attorney who is retained may be particularly fitted for a certain class of invention by reason of his previous experience and the inventor is fortunate in having the services of an expert in the class to which his invention relates. Or again the inventor is at a decided disadvantage in case his invention is of a nature which is not understandable by or completely familiar to the attorney representing him. In either case a complete and understandable disclosure should be made to the attorney. It should be remembered that if the invention is not completely and

clearly disclosed to the attorney, it will not, in turn, be completely and clearly described and claimed in the application for patent.

It is for these and other reasons that the author believes that every inventor should have a clear understanding of patent matters so that he can aid his attorney as well as watch the procedure. If business men are better able to conduct their business by reason of a knowledge of commercial law, why should not inventors become familiar with patent law and procedure with a similar object in view?

The specification then is in the nature of a complete disclosure of the invention to the public. According to the best practice, as suggested in the rules of practice, this document consists of seven distinct parts. These will now be considered in detail with particular references to items which are not given in the rules of practice or published elsewhere as far as the author knows.

The preamble comprises the name and residence of the inventor and gives notice that the title stated therein is his invention. The title is an item which admits of comment. According to the practice, every invention is regarded as an improvement and this word appears in the printed forms provided by the Patent Office. In most cases this word may be omitted in the title and preamble and the author believes that such an omission when possible may increase the value of the invention slightly when it comes to selling the patent. Of course, in cases to which it directly applies this word should be included. Like the title of a book, the title of a patent should be descriptive and suggestive. The title may become of more importance than might at first appear. Thus "sounding device and the like," suggests a variety of possible devices, but nothing definite. Again, a title may be of such a nature as to cause it to be classified in

a subdivision which is different than that to which it in fact belongs. There are many other cases similar to these. One result is a needless confusion to persons who subsequently make searches either for the purpose of purchasing or ascertaining the state of the prior art. There are numerous cases in which a patent has been entirely overlooked on this account. To this extent the office sometimes requires the applicant to change or modify the title of an application. Unless the subject is inaccurate or of unnecessary length or the like, the applicant cannot be forced to change his title. The inventor, then, has the right to select and carry out a desired title, but ordinarily it is the best plan to choose one which accurately suggests the subject matter. The gist of the foregoing was aptly stated in a recent decision. 152 O. G. 957.

It was held that,

An applicant should be permitted to retain a title which he believes peculiarly fitting or desirable, unless such title is in fact inaccurate or improper, or for some other substantial reason.

The second part of the specification includes a general statement of the object and nature of the invention and the class to which it relates. In some applications there are several objects instead of one and they should all be stated. It is also in accordance with good practice to include some statements concerning the adaptability of the invention, the uses for which it is suited, and the like. Such a statement, however, should not be unnecessarily profuse. In some applications, as in the case of new processes or arts or the like, it may be necessary to include a brief and understandable statement of the operation and principles of the invention. It is permissible in such cases to include references such as scientific articles from bulletins and journals. Ordinarily such extensive statements are unnecessary.

There have been cases in which the applicant has gone to an absurd extent in this respect, thinking perhaps that the value or the patentability of the idea depended upon such procedure entirely. On the other hand, there are too many applications in which such statements are incomplete and curtailed. An incomplete statement of the invention is entirely out of place in modern patent practice.

Then there is the general practice of stating the objects in a purely legal manner. Such methods often result in making the patent unintelligible to a layman and are for this reason less desirable than a more extended statement in ordinary terms. In any case the chief object is to make the invention fully understood within the limits of this part of the specification without unnecessary prolixity.

The third part of the specification is generally very brief and merely refers to the nature of the figures in the drawings in cases which require such illustration. This part is generally limited to such statements as, "Fig. 1 is a plan view, Fig. 2 a front elevation, Fig. 3 a section view of the part 4, and Fig. 5 a perspective view of the part 7."

In the case of design patents, the claim follows after this part and the former parts are modified slightly. A design specification is very simple and is generally brief.

In either mechanical or art patents a detailed description of the invention is next given. In the cases which require drawings reference is made to the several views and the parts are described in detail. This part of the specification should be complete and should set forth the best mode for constructing the several parts, for compounding the compound in the case of compounds, the best materials to use, the best mode of carrying

out the invention, and the mode of operation; in short it should set forth a complete and understandable statement of the invention. It may happen that the inventor knows or has used several equivalent materials, means, or the like for this purpose and in some cases such equivalents may be embodied in suitable statements. It should be remembered that it is necessary to illustrate all of the parts to which reference is made in all cases which admit of illustration, and that the inventor is generally conceded equivalents without stating them. In cases in which an equivalent is an invention in itself, but which is associated with the main idea, it should be illustrated and described as an alternative means for accomplishing the objects. The other requirements for the specification will be found clearly set forth in the rules of practice.

The foregoing referred particularly to the body of the specification. Each case may require some special treatment aside from the general requirements stated. Thus improvement patents generally include a statement of the prior art, its defects, and how the invention embodied in the application overcomes the defects. It is not allowable, however, to make decided or unparliamentary references to the prior art or to any specific patents or patent. After describing the invention, its various features, and operation, the applicant then concludes with a definite statement or statements of what his invention comprises or is.

The Claims. Part 5. — This statement is of great importance in that it sets forth what the inventor asks for his monopoly as an equivalent for disclosing the invention as set forth in the specification. It clearly defines what he has invented and what he asks protection for. If it is incomplete, the public is so much the gainer and acquires the unclaimed portion without giv-

ing the equivalent seventeen-year monopoly to the inventor.

The claims, therefore, constitute the vital part of the patent. To the best interests of the inventor they must be as concise and clear and as completely cover the invention and its equivalents as is possible in view of the prior art. It has been repeatedly held that the inventor is entitled to protection only for the part of his invention which he sets forth in the claims and if he neglects to include a part of the invention in the said claims it is either understood that he does not claim to have invented such parts or that he dedicates them to the public. The inventor then acquires a patent only on what he claims and forfeits the right to what he does not claim even if he has fully described or shown such invention in the drawings and specification.

Stated in other words, the claims of a patent define the limits of the patent and matter which is shown but not claimed does not belong to the inventor nor can it be later construed as belonging to him in case the unclaimed parts are subsequently infringed.

The claims are the pivot about which the fight for a hole-proof patent is centered. It requires keen skill to lay out the claims for a patent and even keener skill to maneuver them in such a manner as will permit their allowance. From the commercial point of view the value of a patent may be said to be vested solely in the claims. No matter how clear and novel the specification may state the invention the patent only covers what the claims set forth.

It is for this very reason that so many patents are practically worthless and that so many inventors are misled. It is difficult for the layman to comprehend a claim or claims and to understand their meaning. Perhaps without an exception the average layman can only

comprehend a patent from the drawing and specification and it is no wonder that many are under the impression that the patent is for these parts of an application, when it in fact only covers a small part of what is shown and described. This may be due to the condition of the prior art, incompetence of the person who prosecutes the application, poor judgment by the inventor, the attorney, or the examiner, or to some similar cause. The narrowness of many patents may be ascribed to two or more of these reasons.

A "thin" patent may also be due to a too complete description of what is claimed. In fact some claims are so constructed as to constitute a regular story of the invention. The author has examined claims containing from two hundred to five or six hundred words in one claim. Some of these claims are almost as long as an ordinary short specification need be. To be sure this kind of claim is readily understandable to a layman by reason of the detailed description. But of what use is such a claim? Suppose the invention which is thus *protected* (?) to be actually marketable. This illustration does not of course include some extremely complicated inventions which may *require* from 75 to 200 words, or more for a concise description. If the invention is successfully marketed, how long do you suppose it will be before there are Chinese copies of it? A mere change in a detail, a mere omission of a part, and the device will not infringe the "thin" patent. But suppose the inventor is obdurate and sues the infringers. It is only too likely that he will be told that his patent is invalid or if valid that it is not infringed by reason of the fact that it must be closely construed as stated in the claims.

Of course a layman may even regard such an expanded claim as affording a better protection than a technical concise one, for does it not completely describe the in-

vention? Yes, but altogether too completely to be of real value. Puffed up claims may be compared to vacuum bulbs, *i.e.*, they are hollow and void inside.

The gist of the foregoing may be summed up in the words that the claims should not be a detailed description of the exact and complete details of the invention. The specification is intended to do this, *not* the claims. The whole story should be told in the specification proper, with all of the details, but the claims should comprise only a concise statement of the invention. Of course, the claims are naturally limited by the state of the prior art in spite of the fact that the inventor may think himself entitled to a broader protection. This item is generally determined by the examiner.

On the other hand, the examiner will not of course determine the scope of the full invention unless it is fully pointed out to him by a complete set of claims. If the inventor or his representative is unwise enough or careless enough to omit claiming an invention to which the inventor is entitled, it is none of the examiner's business. In fact it is the examiner's duty to allow only that part of what *is* presented which is permissible in view of the prior art and in accordance with the laws and rules of practice. He represents the public and not the inventor and can therefore not counsel or aid the inventor by pointing out where the inventor may secure advantage over his client, the public. This fact is peculiar to patent practice and is imperfectly understood by most inventors. It happens only too often that an invention having novel points over the prior art is issued as covering only one or perhaps two of the parts. Again, not a few patents are issued for details of an invention, when in fact they might readily have been for the invention proper. The author has come across a number of such patents in preliminary examinations, which in

view of the art at their time of issue might easily have been claimed broadly. In one case it developed that the inventor had actually invented a basic idea in the art, but the claims were limited to mere constructional details covering in addition a clumsy and inoperative structure. There are innumerable other cases of this sort.

No reader can fail to see the point of the foregoing, namely to avoid similar occurrences. Every inventor naturally desires the broadest protection possible. It is no wonder that a few inventors have become embittered against the patent system for these and similar reasons. They live to see others profit from their ideas, their patent attacked and torn to pieces, and another reaping a fortune while they obtain no compensation. To an ordinary person it is difficult to see why an invention, which has been awarded a patent, duly executed with seal and all, does not in fact afford them all of the protection which is provided for in the constitution; and it is surely disappointing to see dreams of fortune and fame disappear lightly, like an ordinary dream.

The answer is, that it is not the fault of the constitution, but of the inventor. Either he or his representatives have failed to secure the rights which the constitution provides. It is the fault of the inventor or his attorney and not of the constitution and in the end this must finally appear clear to him. There is in fact nothing different in this than in ordinary law. As a citizen of the United States for instance he acquires the right to vote. If, however, he *neglects* to properly register as required by law, he is denied a vote. Again, take the case of an alien who has resided in the United States for many years longer than is actually necessary to become a citizen. If he *neglects* to properly apply for rights as a citizen, he remains an alien. Many other examples involve the same principle.

The case of an inventor who does not properly apply for a patent, or who *neglects* to obtain all of the rights which are due to him under the constitution, is no different, except perhaps that he may lose the rights through no fault of his own. When it is further remembered that it is less difficult to secure all of the rights provided by the patent laws, than many of the rights provided by other laws, the force of the illustration becomes stronger.

Another perplexing problem to the average inventor who is applying for his first patent is just what a claim is, does, and protects. He also desires to know what the purpose of a multiplicity of claims is; why one claim is insufficient; why the claims are made technical and unintelligible to him; how many claims his invention should have allowed; what the claims which he is allowed protect; and similar questions.

If he has trustworthy and reliable counsel, many of these points will soon be made clear to him. At any rate he is bound to learn from experience. In any case it will be found valuable to have some idea of the points involved. To this end let us consider the general nature and construction of claims.

Nature and Construction of Claims

As has already been stated, a claim is a distinct and specific statement of the invention, part, improvement, or combination, which the inventor declares to be his and for which he asks a monopoly for a limited time as compensation for disclosing the same to the public.

It is in accordance with good practice to construct claims after a knowledge of the prior art has been acquired from a preliminary search. The attorney then proceeds to construct the claims which he knows will cover the invention and which he is reasonably certain will be allowed. He will also include claims which will

fully protect his client to the best of his ability, but which are of doubtful sanction by the examiner who will take charge of the case. The difficulty with this method is that a knowledge of other patents may prejudice or control the nature of the claims to an undesirable extent, but it is far better than the practice of constructing limited claims without reference to the prior art and which it is reasonably sure will be allowed. The latter practice gives the possibility of not claiming an invention in the broadest and most protective manner possible. The methods of attorneys vary considerably and the practices which are not commendable have already been mentioned. The deliberate limiting of claims with a view to obtaining quick allowance and quick fees, without reference to the actual protection which is afforded the client, and similar practices to secure allowance to save fees, are also not commendable.

The construction of claims may be compared with a geometrical problem. The data is given in the specification and the claims must be drawn with reference to the data and also to the prior art as it is understood. The claims are also constructed with reference to proper practice, possible equivalents, and possible infringement. Further items which control claim construction are: reference to and the avoidance of interference with the prior art, reference to possible attack at a later date, and reference in a few cases, it is sad to relate, to the size of the fee which has been obtained. The latter item is the only limitation which is not in accordance with good practice.

Let us take an improved safety razor as a concrete example. Suppose that the invention over the prior art consists in the feature of construction, adjustable angle for the handle, a specially narrow blade held in a demountable frame, and a flexible handle. This is merely

an arbitrary case. Suppose further that reference to the drawing and specification showed that the adjustable angle was secured by a ball-and-socket joint, the narrow blade held in a sheet metal frame wedged into the main frame, and the handle made from a spring covered with leather.

Supposing that the following claim is drafted, let us examine it closely.

1. The combination in a safety razor, of a separably mounted blade, a support, a flexible handle, and means for adjustably connecting the said handle to the said support.

If this claim were allowed it would also include a razor having a separable mounting of a peculiar shape, a razor having a different type of flexible handle, and a ball and socket, lever, screw, or other joint which could be used to make the handle adjustably connected to the supporting frame. But the prior art shows that there are a number of similar razors which differ only in the constructional features. If only the foregoing claim were presented it is quite likely that it would be rejected in view of the prior art or if allowed that it might be successfully attacked or avoided at a later date. Suppose that the following claims are also drafted with these objects in view.

2. In a safety razor the combination of a support, a wedge-shaped mounting adapted to be inserted in the said support, a narrow blade held by the said wedge-shaped mounting, and a flexible handle adjustably connected to the said support.

3. In an apparatus of the class described the combination of a narrow blade having a wedge-shaped support, a main support, means for mounting the wedge-shaped support in the main support, and a flexible handle adjustably connected to the main support.

4. A safety razor comprising a double support, one of the support parts including a shield, a flexible handle, and a universal joint between the handle and support members.

5. In a safety razor the combination of a narrow blade, a combined shield and support for the said blade, a holder having a wedge-shaped opening for receiving the said support, a handle comprising a leather-covered spring, and an adjustable supporting joint between the said handle and holder, substantially as and for the purpose set forth.

Other claims might also be drafted to cover the novel handle in particular, the novel double holder feature, or the wedge-shaped combined support and shield feature.

None of the claims 1 to 5 could be called basic but in view of the prior art they might easily be as broad as possible. It will be seen that each claim covers slightly different points and while they might all appear similar at first sight it will be seen that they cover different features. The last claim is perhaps the most limited of any and is pretty sure to be allowed.

Suppose that the claims are actually allowed as presented and that the razor is subsequently successfully marketed. Suppose also that an infringing razor which embraces the flexible handle without the universal joint, the narrow blade with a triple support but one of which members is a combined support and shield, and triple members which are circular instead of wedge-shaped, is subsequently marketed.

If the five claims were upheld as valid it is quite likely that the patent would be held as infringed. If one claim was held as invalid, there would still be four others which were valid and infringed. Or, again, the patent might be held valid and infringed only as to claims 1 and 4. Or, further, all of the claims with the exception of the last one might be held to be void in view of the prior art. In any case, this example illustrates the value of more than one claim. It is of course possible that it might be held as no infringement even if all of the claims were sound, by reason of the fact that they

would not be interpreted except in a limited manner in view of the prior art.

There are many other examples in which a group of claims is valuable. Suppose again that the examiner should only allow claim 5 and claim 1 when amended to include details. The patent would lose a large part of its value when thus protected, since anyone might omit a single detail, or substitute for a single part to avoid infringement.

None of the claims 1 to 5 are sufficiently broad, with the possible exception of claim 3, to include a corn remover embodying substantially the same features.

The reason why the value of a patent depends largely on the nature of the claims should be apparent from the foregoing. Indeed the various claims of a patent are generally construed as constituting separate inventions. Thus a patent with nine valid claims is relatively equal in value to nine separate patents of equal subject matter but which have only one claim each. It happens frequently that the value of a patent may depend on only one or two of the many claims which it embraces or again its value may depend on each and every claim. It has been upheld that a patent embracing claims for both the general invention and narrower claims for detailed parts are not to be regarded as limited to the detailed and limited claims.

Advantages of a Group of Claims. — To sum up the advantages of a number or group of claims it may be said that a group serves to insure the validity and scope of the patent. It is a protective means for preventing infringement and avoidance of the patent. If one or more of the claims is declared invalid the entire patent does not become invalid, but still embraces the valid claims. A patent may not be infringed with reference

to all but one or two of its claims and still be infringed and protected against infringers.

The foregoing does not however hold true with regard to patents in which there is a useless repetition of claims having practically the same scope. There are but few cases in which a large number of claims are necessary or allowable.

Dissecting Claims

"It is evident that a claim may not be expanded beyond its proper content. No rule is better settled. And a rule which should be equally well settled is that forbidding dissection of a claim for the purpose of anticipation piecemeal. Take the Selden Claim for example. The elements could have been found, all of them singly and some of them in combination. By such a course the examiner could have shown in one patent a running gear with steering mechanism and a carriage body, in another a gas engine with a power shaft and fuel receptacle, in a third a clutch in connection with a shaft, and then he could have stated in the dogmatic style of the office that it did not require invention to combine these.

This is the familiar, common practice of the Patent Office. That it is wrong is self evident, that it cannot be stopped so long as we have the present type of examiner is also self evident to those who have had long experience with the Patent Office.

But it is otherwise with the courts. They will not permit dissecting and anticipation piecemeal. A claim is an entirety and must be so treated." — Macomber Eng. Handbook Patents.

The claims of a patent are generally arranged in order with the broadest ones first, but this order is not always followed. In view of the fact that only five claims are printed in the Gazette, it is considered advantageous to have the best claims at the first so that persons referring particularly to the Gazette will receive a full impression of the scope of the patent.

Certain Types of Claims which are Rejected

Each case generally requires individual treatment in regard to the claims. While there is some latitude as to the exact wording of claims, they should always be stated in the most concise and clear manner possible, without using unnecessary connectives, clauses, phrases, modifiers, and the like. It is necessary, however, to include all of the parts which are referred to in the same claim. Thus if in the case of the razor, which was taken for an example, the part, "a support," were omitted from claim 1 and the claim read,

1. The combination in a safety razor of a separably mounted blade, a flexible handle, and means for adjustably connecting the said handle to a support.

it would be incomplete because an element, the support, which is referred to in the claim, is omitted. See also, 160 O. G. 1271.

It is also poor practice to claim the same element a number of times in the same claim. This is liable to happen in claims which contain the word "means" or similar words a number of times and which might be construed as being repeatedly referred to in the same claim. Such construction is not allowable.

Indefinite claims are also refused allowance. Vague or abstract collections in a claim are also refused and rejected. It may occur to some of the readers that they have seen some patents which contained such claims. It will probably be found that such claims are in fact not of the kind just referred to, or that they are allowable on account of the nature of the patent, or again, they may have been allowed through an error. There are few cases of this sort.

Claims for both an article and the process for making

it or similar joined inventions can sometimes be embodied in one application.

Narrow Claims. — Narrow claims can generally be distinguished by such marks as lengthy and detailed description, reference numerals in the claim, long modifiers attached to the elements specified, such terms as "substantially as and for the purposes set forth" * and the like. It is of course possible in a few cases that narrow claims may be of great value. This is particularly true in arts which are old and which have received long and active attention on the part of other inventors. Again, there have been cases in which patents limiting the invention to practically Chinese copies, have been very successful. This is particularly the case in simple inventions having great utility.

Broad Claims. — Broad claims are generally claims which are so worded that they protect the invention against possible infringement or avoidance. The term is often misused and applied to patents which are limited to some extent. When the patent's claims are of great scope and include the invention completely as well as possible substitutes, improvements, and equivalents, and include other applications besides a specific one to which it is suited, in short if it is very comprehensive in its nature, it is called a basic patent and the claims are termed basic claims. There is a relatively small number of examples of basic patents. The Bell telephone patents, the Selden auto-vehicle patent, and the Edison vacuum bulb lamp patents are examples. In fact it seems that the first inventors in the field acquire the right to a basic patent, although a number fail to properly realize or apply for this right. A patent may often be broad without being basic. Thus, it may include

* This phrase is ambiguous since it is implied whether stated or not. It is popularly thought to limit a claim.

some but not all of the equivalents, cover some but not all of its possible uses, include some but not all of the possible improvements, and so on. There seems to be an average between broad and narrow claims to which most or at least a large number of the patents belong. They are broad in so far as they go, but narrow in so far as they do not go. This point may be determined by the prior art or may be caused by the lack of ability on the part of the inventor or his attorney to realize the state of the prior art and to acquire all of the advantages possible. A generic claim is one broadly constructed to protect a pioneer invention.

Special Claims: Terms Used: Number of Claims

Process claims require particular treatment. They set forth a sequence of operations and the manner of and conditions for the parts of the operation. The order is generally given in the specification, but it requires a fine perception to draw the claims in the broadest possible manner. The conditions are such as temperature, the solvents used, catalysts, mode of operation, etc. The manner must be so stated as to include possible equivalents or substitutes as far as is possible.

Mechanical claims are generally combinations, but it is important that such combinations should not be too restricted. It is in accordance with good practice to use such terms as "means," "suitable means," instead of an exact description of the parts comprising the means. This is not always possible, however.

A combination claim should generally be limited to the essential elements. When possible, any series of claims should contain separate claims to cover definite features which have a marked function. Long series of claims are built up in this manner.

Articles of manufacture are generally given similar treat-

ment to that for machines and the like. The exact nature of the machine or article may be specified in the claim or stated as belonging to a class specified or described.

A composition of matter generally contains reference to the purpose or use for which it is intended and gives some latitude as to the exact proportion of the ingredients. It may be necessary to include several claims for this purpose.

There are a number of possible viewpoints in claim construction and a number of equivalent terms. Thus, the terms, embracing, comprising, consisting of, which comprises, which consists of, and like terms, imply similar or identical meanings. These words are found in nearly every claim. The word "said" merely serves to identify and refers to a part or means, and aids in defining the invention. The word "means" is very elastic and is substituted for a variety of words and phrases describing the details of a part or the like. The many other words used in claim construction are largely technical words for the sake of clearness in definition. In studying a claim, such terms can be readily understood by reference to a good dictionary.

Claims should be as short as is consistent with definition and clearness. There are a few patents containing claims with as few as five or six words. A good average length for an ordinary invention seems to be from forty to seventy-five words. The average number of claims which are allowed varies and may be a net average of from four to six. Many patents contain from ten to forty claims and a few contain as many as 75 to 125, or more. On the other hand, the number of patents with one or two claims is relatively large.

Claim Analysis. — In studying a claim or comparing it with other claims the following method of analysis will be found advantageous. A claim can generally be

divided and subdivided into definite components and subcomponents. Some claims also have modifiers to the components and subcomponents. When thus split up the relative merits of a series of claims or any two claims can be found. When the claims under examination contain different terms, equivalent terms can be substituted to make them have a common value for comparison. Thus the word "round" may be substituted for "annular" etc. Consider the following claims.

1. A condenser comprising a dielectric having its ends divided into diverging portions.

2. A condenser comprising a dielectric divided at a point of stress into portions which are separated so as to leave between them a cavity for containing a material with properties different from said dielectric, whereby the capacity of said dielectric is varied.

Analysis of Above Examples.

(1) 1. A condenser

a, comprising a dielectric

aa, having its ends divided

aaa, into diverging portions.

(2) 1. A condenser

a, comprising a dielectric

aa, divided at a point of stress

aaa, into portions which are separated

aaaa, to leave between them a cavity

aaaaa, for containing a material

aaaaaa, with properties different
from said dielectric

bbbbbb, whereby the capacity of the
said dielectric is varied.

Case (2) also allows of other analysis arrangement.

The utility of this method should be apparent.

Functional Claims. — Claims are often rejected by the Patent Office examiners on the ground that they are functional. Just what a functional claim is has never been

well understood by the majority of those concerned. A board composed of Examiners Rich, Henry, Maxson, and Newton, the latter now being assistant Commissioner has given the Patent Office definition and the action for such claims. This definition is very recent (Nov. 12, 1913), and was prepared as an "answer or substance of an answer deemed worth 100 per cent" in an examination for promotion in the Patent Office held on this date.

Question 1. (a) What is a functional claim?

(b) State the different classes and the proper action in each when presented.

Answer or substance of answer deemed worth 100 per cent.

2. 1. "A functional claim is one defined by terms of function or operation, rather than by substantive terms. There are four forms of functional claims.

(1) Claims covering a function, result or effect, not a product or composition of matter. Such claims should be rejected for this reason, and also on any pertinent art.

(2) Claims covering the function of a machine or apparatus, usually in the form of a method. Such claims should be rejected for this reason and also on any pertinent art.

(3) Claims which recite the functions of elements, not their structure. Object to the form of such claims and reject on any pertinent art.

(4) Means, etc., for doing certain things. Claims which define the structure of mechanisms by the results produced. Object to the form of such claims and reject on any pertinent art. See *ex parte* Kundsén, 72 O. G. 589; C. D. 1895, 29 *ex parte* Bitner, 140 O. G. 256; C. D. 1909, 32."

Courtesy MR. F. L. PITTMAN, Asst. Examiner, U.S. Pat. Off.

A better and more complete idea of claims and specifications can be gained by a close study of the patent records and new patents as they are issued. This is a subject with which every inventor and manufacturer or investor should be familiar. It is just as important as a knowledge of ordinary business laws.

Parts 6 and 7 are the signatures of the inventor and witnesses and require no further comment.

CHAPTER X

OTHER POINTS OF PATENT PROCEDURE

BLANKS for the petition and oath may be obtained gratis from the Patent Office. The petition requires no special comment. The oath, however, is a document worthy of attention.

Oath. — Under the present practice the execution of the oath is made particularly complicated. The inventor is required to either swear or affirm (this last provision is for those who have objections to swearing), that he is and verily believes himself to be what is set forth in the form. If he has an attorney, he will be instructed as to the steps necessary for the proper execution of the oath. There is some little “red tape” to the oath and the readers would do well to clearly understand the requirements as stated in the rules of practice and the amendments to the rules. The oath generally means a slight extra expense for the notary’s fee. The rule requiring a ribbon or tape to be passed one or more times through all of the sheets of the application is sometimes bothersome to the inventor. This provision is intended to prevent alteration, addition, or subtraction to the sheets after the oath has been executed.

Drawings. — The rules of practice are very clear with respect to the requirements of drawings. In addition it may be remarked that the drawings should be as consistent to the rules as is possible and that the drawings should be as simple as is possible with respect to clearness. The suggestion relative to a figure for the Gazette is a good one and is to the interests of the inventor. When outside draftsmen are employed to prepare the

drawings they should be specifically told that the drawings are for patent filing. The Patent Office offers the services of the office draftsmen to inventors for a reasonable fee. This last offers the additional benefit of accuracy in form and an insurance of satisfactory work. Some attorneys have their own drawing corps and a few make this feature quite a profitable part of their business. The practice of filing an unnecessary number of sheets of drawings is poor practice and is not sanctioned by the Patent Office. In practice the rules must be quite closely adhered to. A special drawing paper with the border lines already printed is obtainable at most dealers in draftsmen's supplies. The use of numerals is better practice than the use of letters in most cases. It is in accordance with good practice to file prints of the drawings at the time the papers of an application are filed. These prints can be ordered from the office for the nominal fee of 15 cents each for the small size. It is advisable for the inventor to retain a complete copy of the specification and drawings.

Models. — Models are seldom required. The office and most of the attorneys specifically state that they are not necessary. The practice of a few attorneys to advise the construction of a model, also specifying the name of the model maker for the purpose of profit, is not commendable. Models, however, are often valuable aside from their use in preparing and filing a case, since they are good evidence in case of contests and are good means for explaining the merits of the invention to possible purchasers.

Appeals. — We have already discussed how an inventor may lose the rights which in fact belong to him through carelessness, neglect, or through no fault of his own. It has also been pointed out how the Government has provided protective measures for the inventor in

other respects. The Government has also provided means whereby an inventor may partially or wholly regain the rights which he has lost by reason of mistakes in his patent as allowed. He also has recourse when he receives an adverse decision during the prosecution of the application.

It often happens that repeated arguments will not convince an examiner in regard to important points. Interviews with the examiner as provided by rule 152 may sometimes clear up points of dispute, and a satisfactory understanding may be arrived at.

However, it may happen that the examiner is obdurate and after the two rejections as required by the rules of practice recourse may be had by appeal to the examiners-in-chief. The grounds which may be involved are stated in rule 133 and include most of the cases which admit of appeal.

The fee required by the government is only \$10 and for this reason this method is often resorted to. It is in the nature of a simple hearing in which both the examiner and the applicant present their points of view. The only feature which is not commendable is the useless appeal of hopeless cases or the appeal on points which arise through the incompetency of the attorney in the case. The appeal is then decided for or against the applicant. A favorable decision merely reinstates the case for further action and it is subject to other objections which may require repeated appeal. In the case of an unfavorable decision further appeal may be taken.

This second appeal is to the Commissioner and the government fee is \$20. It may be remarked that the additional attorney's fees generally bring the cost of an appeal to two and a half or three times the government fee alone. The points involved in appeals are quite fully established and it is seldom that a case involving

radically new points appears. The attorney can judge with a nicety as to the propriety of an appeal in nearly all cases. It is only seldom that a case is reversed on appeal and it must have merits to receive favorable decisions. Even a favorable decision on this appeal merely puts the case back to the examiner for further action and it is liable to further objections as before.

There are some cases which can be taken direct to the commissioner from the examiner as provided in rule 145 without the payment of a government fee. This provision applies particularly to the settlement of disputes in matters of form.

In any case appeals always serve to delay the date of allowance of an application. *Ex parte* cases are further appealable to the Court of Appeals of the District of Columbia. Interference cases are similarly appealable as in ordinary *ex parte* cases. It may happen that the decisions of both the Commissioner and the examiners-in-chief will be reversed on appeal to the Court of Appeals, but the Commissioner is generally upheld by the court.

Abandoned Application. — As has already been discussed, an abandoned application generally results from the neglect or incompetency of the attorney or person conducting the prosecution. To revive an abandoned application a clear showing must be made that the delay in the prosecution was unavoidable. The cause may be ascribed to the examiner, deaths of attorney or inventor, or other unavoidable circumstance, but it must be convincing. Perhaps one of the best cases to illustrate is the recent Mattulah case. The decision of the Commissioner refusing to revive the case was reversed by the Court of Appeals. The latter decision was only in accordance with equitable treatment to the widow of a mistreated inventor and illustrates the fact that the Patent Office is not always free from error.

A new application can be filed in place of an abandoned application with new drawings and papers. The case is then open to prosecution and rejection the same as a new case, except that the same references and rejections are quite likely to reoccur.

Forfeited Application. — Unlike an abandoned application, a forfeited application is withheld from issue solely on account of the failure of the applicant to pay the last fee. This may be due to inability or neglect. The remedy is a renewal.

The inventor thus has several preventive and insuring measures. When a case is forfeited or abandoned it is not cited as a reference in other cases. A forfeited application does not therefore protect an inventor. Thus if another applies for a patent on the same invention as is embodied in the forfeited application, no notice will be given to the party whose case is forfeited.

Interferences. — Another bugbear of inventors is an interference proceeding. It is one of the most expensive and most unwelcome parts of patent procedure. To a rightful inventor it means a very expensive delay and it may even mean the loss of his patent right. In the ideal sense it is a proceeding to determine the priority between two or more inventors who make application for substantially the same invention. In practice, however, it is often an unsatisfactory method, particularly to an inventor of limited means. Then, too, there are many cases which show obvious abuses. At any rate the proceeding is one of the most complicated parts of patent procedure. Some idea of its complication may be gained by reference to the rules of practice, a large part of which is taken up by the interference proceedings rules. The reader is referred to these rules for a more complete account of these proceedings. The discussion

in these pages will be limited to a few points concerning expense, misuses, and points of note in such procedure.

Interference proceedings should be avoided whenever possible. It is often found less expensive to settle with a party in preference to entering a contest with him. The party thus paid forfeits his rights. There are even cases in which the party thus paid off would be the loser in case the proceedings were carried out, and some parties even manipulate their applications to such an end. This is one of the objects which such parties have in keeping an application alive over a period of years. When another party comes along with a perfected invention they are declared in interference even if the former party's invention is inoperative or the like. The party can then make a successful proposition to forfeit his rights so that the new party can avoid the costly proceedings.

No one can deny that the proceedings are costly. Numerous matters of form have to be adhered to, costly depositions from high-paid expert witnesses and similar expenses must be incurred. Often the depositions taken are of a perjurious nature and the inventors go to great lengths in an attempt to establish priority. It is even possible that the case will be decided in an unsatisfactory manner in favor of the party of least merit. A study of some interference cases reveals practices which are not commendable to say the least and some even savor of a criminal nature. Attorneys in such cases often go to unnecessary lengths and bring a vast quantity of irrelevant matter into the case. The attorneys generally require a large fee in any interference case, since it takes up considerable time. Many cases are purposely lengthened with a view to obtaining larger fees and tiring the weaker party out. Again, witnesses give unreliable and deceitful testimony. Even if a case

is decided, it may not become effective until appeals have been taken to the last resort, the Court of Appeals of the District of Columbia. It is no wonder that rightful inventors lose in such cases at times, particularly if they are persons of limited means. Needless to say, success in such proceedings depends largely upon the ability of the counsel which the inventor retains. Generally the individual merits of a case are considered and priority awarded to the party who conclusively proves his merit. The inventor who proceeds with the greater diligence, who reduces the invention to the practical point first, and the inventor who produces the most comprehensive evidence generally wins. Even when an interference is finally decided the winner merely has his case reinstated for further prosecution and is open to further rejections or interferences. Happily, however, the relative number of interference cases compared to the total issue of patents is very small and only a fraction of one per cent. The cases which are involved are generally of a valuable nature. Only too many such cases are decided in a manner which is not equitable to the rightful inventor. The loser at this point in the procedure certainly receives little for his disclosure of invention, particularly if he is a deserving party as is frequently the case.

The Court of Appeals has been termed the last resort in the foregoing paragraph. This is not always the case, however, for decisions of the Court of Appeals are not final and the losing party has a further right to file a bill in equity against his rival, under the provisions of section 4915 of the Revised Statutes. This bill may be filed in the judicial district in which the rival may be found, and the plaintiff may make an entirely new record of testimony, calling as many witnesses as before, or more. If this case is decided against him, he may

appeal once more to the United States Circuit Court of Appeals in that circuit which embraces the former court. All of these appeals are costly and consume a great amount of time. This part of patent procedure is condemned by many and it is certainly expensive and unfair to the rightful party to say the least. In the meantime, while the rival inventors fight for the patent right, the patent itself is long delayed, to the hardship of the general public. The long-drawn-out appeals are certainly of little use and are often a mere excessive and expensive weight and burden. Similar delays and expense are involved in infringement suits and these will be discussed later. Perhaps a clearer idea of the time and expense involved in an interference proceeding with appeals against a stubborn rival may be best understood from the following table. The various steps are set forth without detail together with the time generally consumed. It should be further remembered that each attorney in the case probably receives from twenty-five to one hundred or more dollars per day for his services, while expert testimony often costs about fifty dollars per day for each expert. The minor witnesses are also a considerable expense, not to mention printing and many other incidental items. There is a commendable movement at the present time to reform this part of patent procedure to make it simpler and more certain. The movement is directed particularly to the curtailment of the number of appeals which may be taken.

This brief recital should convince all readers of the desirability of avoiding interference proceedings and of retaining indisputable proofs of their invention and priority to provide against possible contests.

Table Showing the Possible Steps in a Priority Contest under the Present Laws. The various steps are not unduly exaggerated. The table should conclusively show how unsatisfactory and expensive such proceedings may be. Luckily, there are but few cases which endure the full limit of appeal. The total expense involved in an important case is enormous. Can the reader calculate how long a poor inventor or one of moderate means would last?

NOTE: In these interferences the first applicant is called the senior party and does not have to submit proofs until after the junior or later applicants have filed priority proofs. The senior applicant has some advantage because the junior applicant may fail to take the necessary testimony on account of the expense involved. The senior applicant then gets the patent without a fight.

1. Declaration of interference. Depositions taken by both sides and proofs of priority submitted and argued to the Examiner of Interferences.

2. Examiner of Interferences reads the record of testimony and awards priority to one of the claimants, after a delay of from two to four months. He also fixes a limit of appeal which is generally twenty days or more. If the losing party should not appeal the case ends at this point.

3. First appeal is to the Board of Examiners-in-chief, a tribunal of three. A hearing is set for a day one to two months distant. Another argument and showing is made at the hearing.

4. In about two to six months later the Examiners-in-chief decide and indicate the winner and another limit of appeal of twenty days or more is set.

5. The next appeal is taken to the Commissioner, in person. The date for the hearing is again set for one to two months later, when another argument and showing is made.

6. The Commissioner's decision is then forthcoming at any time from one to four months later. If the loser persists, notice of appeal may be again given within forty days of the date of the judgment and may docket the appeal within another forty days after the notice.

7. The appeal is then heard and decided. The time taken varies and may amount to six months or more, depending on the time of the year and other conditions.

8. A bill-in-equity may be filed as a further hazard to the winner in the other appeals. The time consumed will probably amount to six months or more for preparation and it may take another two or more months before judgment is entered. An entirely new record may be taken for the suit.

9. Appeal from the foregoing suit may be taken to the United States Circuit Court of Appeals of the circuit which embraces the former court. This appeal may be delayed six months after the entry of the decree of the former court.

10. It may be six months before this appeal will be heard and a few months later the final decision may be handed down.

Disclaimers. — The provisions for disclaimers are quite distinctly set forth in the rules of practice. Disclaimers are generally entered to avoid infringement or to enforce infringement. The latter is a necessary step before damages can be recovered, since a party would not be an infringer of that part of a patent to which a disclaimer should be properly entered. Disclaimers should never be entered without good legal advice and proper showing. A disclaimer may act to save a patent from being declared invalid in many cases and is one of the remedies which has been provided for an inventor.

Reissue. — It may happen that a patent is issued in spite of the fact that it is defective in one or more of its parts. The inventor luckily has a remedy in such a case, if he can prove that the error has arisen through inadvertence, accident, or mistake, and without fraudulent or deceptive intention. Such a case should be fully investigated by good counsel before being entered. Ordinarily a reissue patent cannot contain expanded and broader claims, and is intended merely to correct unavoidable errors and mistakes which are inherent in the specification, claims, or drawings or all. It is a protective measure for the inventor and acts as a cure for errors which he cannot otherwise remedy. A reissue is not in any sense a renewed patent and merely lasts during the seventeen years beginning with the date of the original patent. Inasmuch as the reissue application is subject to examination and rejection as in the case of an ordinary application, it is one which is hazardous to an extent and which must be prosecuted with particular precision and care. Rules 85 to 92 give a clear statement of the requirements and limitations of reissues. The reissue must be applied for within two years from the date of the original patent.

Both reissues and disclaimers must be assented to by

any assignees of the patent. The primary object of a reissue is to make a patent valid which is invalid for some reason or other, or to make the scope of the patent sufficient when it has been neglected through error, or the like. The expense involved is generally equal to or in excess of that required for an ordinary case. A reissue may often impart considerable value to an otherwise worthless patent. Reissues can generally be avoided by a proper prosecution and preparation of the original application.

Division. — Ordinarily two or more inventions cannot be shown and claimed in a single application. The independence of the invention may be so clear that division will be demanded before examining the merits of the case. It is a rule of the office that matter examinable in two or more divisions and which can be separated into such divisions, must be so separated. Reissue applications may also require division. Each part then becomes a separate application, with separate fees, etc. The several parts are generally issued simultaneously.

In General. — The Patent Office does not keep foreign patents for sale, does not print a complete index of patents classified according to search classes, does not give notice of receipt of ordinary amendment letters until after the same have been acted upon, and does not at the present time sufficiently warn inventors against certain attorneys and brokers. These are all points which it is hoped will be included in the duties of the Patent Office at an early date.

The matter of giving a receipt for communications amending applications is one of particularly important value. Under the present practice communications respecting other matters, as for instance requests for the rules of practice or the like, receive immediate attention, but communications respecting pending applica-

tions are filed to await their turn and no notice of their receipt is given to the sender. The applicant is not definitely protected against loss in transit in this manner. Foreign applicants are particularly at a disadvantage in this matter and there is no definite manner of knowing whether or not the office has received the communication until it has been acted upon, which may be weeks or months later. In at least a few cases, lack of such service has resulted in otherwise preventable abandonment. Registered mail service can of course be used.

It is well known that a complete index of all the patents issued, properly classified, would be a very bulky volume. Then too the classification is continually undergoing changes. The author has therefore proposed that a separate index be printed for each class or subclass. The idea is to facilitate the examinations into the prior art before applying for a patent and for similar purposes. Such an index would be particularly useful to inventors and others outside of the Capitol city, as well as to those residing at Washington. With a file of Gazettes a tolerably complete search could be intelligibly made, and copies of relevant patents ordered. To be of value, such classified indexes would naturally have to be revised or supplemented at frequent time intervals to make them complete and reliable. The task would not be a small one, but it seems evident that it would be well worth while. There have, of course, been several partially complete indexes printed in years past, but these are of little use at the present time. The Official Gazette might also be arranged in an order coherent with the respective divisions of the Patent Office to facilitate reference to new patents as they are issued.*

* During this writing this has been partially carried out and the class and subclass follow the title of a patent. The item of an index by class and subclass is still unprovided.

It would seem that the matter of incompetent or fraudulent attorneys and brokers would not require repeated mention because of former exposures, Patent Office provisions, and postal authorities' provisions. It is nevertheless a fact that new schemes are constantly being hatched and operated to defraud the inventors. Every once in a while one or more of these schemes are exposed and stopped, but new ones always seem to take their place. The names of such persons and concerns should be prominently displayed in the Official Gazette upon evidence (not long-drawn-out legal evidence, but satisfactory immediate proofs).

Every person — inventor, manufacturer, investor, or attorney — should combine to rid the inventors of the persons above mentioned, and all evidence should be immediately and fully forwarded to the Post Office or the Patent Office. The chief reason why some of these continue to flourish is the lack of sufficient evidence against them. When this is supplied, the rest should not be difficult.

Joint Inventors, Employer and Employee. — A perplexing point to most inventors is the relative rights to two or more persons when they are joint inventors, an inventor and a capitalist, or an employer and an employee.

In the first place, if a patent is issued to two or more persons when only one of them is the inventor and is issued as if the persons were *joint inventors*, it is not valid.* When an inventor is supported or financed by a capitalist he generally assigns a part interest or the whole interest in the invention to the said party in

* This has sometimes been done, as in the case of patents taken out in the name of a president of a concern, exclusively, though made by employees. If discovered this would render the patent invalid.

return for a certain sum, wages, or other compensation. In such a case, the patent issues to both parties mentioned or to the capitalist alone as assignee but the invention is credited to the rightful inventor and not to both the inventor and the capitalist. There is, then, an important difference between joint inventors and joint owners. No amount of money can validly make a party who is not an inventor a part or joint inventor of that which another invents, but he can become a part or the sole owner of the patent rights by means of proper assignments. The matter of assignments will be discussed later.

An inventor may conceive the fundamental idea of an invention and then employ others to make a model, drawings, or a full-sized machine, without losing his rights. If the other parties make changes or improvements while thus employed, the entire invention including such changes and improvements belongs to the first party, the inventor. This point is very equitable to inventors who have little or no mechanical ability. It is generally conceded, however, that if parties so employed make radical changes requiring great invention or invention of equal or greater amount than the original party exercised, or invention which does not depend on the original party's invention but which is radically different, it does not belong to the first party unless specifically agreed upon by proper contracts. It is a common practice at the present time to employ such assistance or assistants and the inventor generally protects himself with a contract in which the assistants forfeit their rights, in inventions and improvements which they may conceive, to him.

If an employee invents a machine or the like after he has used the tools and workshop of his employer to experiment with and perfects the said invention, the

entire right, title, and interest in the patent belongs to the employee with the exception of the shop right, which the employer acquires to make use of the said invention in his line of business. The patent must be taken out in the name of the employee in such a case, and unless a specific contract with other provisions is in existence, the employer acquires no other title to the invention except the shop right just mentioned. These points are very equitable to employees and enable them to exercise their inventive faculty without fear of enforced forfeit to their employer. Many employers require a written agreement from the employee to assign all inventions which he conceives and perfects while in their employ, and in such cases, the foregoing does not hold true.

A mere suggestion to a party giving the gist of an idea but no explanation of the means for carrying it out does not make the party giving the idea the true inventor if the other party subsequently embraces the idea in a practical form by supplying the missing means. This point is also negatived by other contracts which may be made between the two parties. These points are soundly established and have been repeatedly upheld.

Public Use.—When an inventor allows other persons to use his invention generally, with or without compensation, or uses the invention himself for profit as distinguished from experimental purposes, such use becomes “public-use” if it continues for a period of two years before an application for a patent is made, and a valid patent cannot be obtained. Proof of a single instance of prior knowledge and use before the date of an invention of the patentee, renders a patent void. These points make it practically impossible to profit from most inventions without having them patented before putting them into use.

Cost of Patents. Extensions. — No patent costs more than another as far as the usual government fees are concerned, whether one is extremely difficult and complicated or another very simple or not. The fees and terms for all mechanical and process inventions and improvements are uniform as far as the government is concerned. Attorneys of course charge according to the nature and difficulty of a case so that the total expense of a patent may amount to many times the government fees in some cases.

At the present time a patent cannot be extended after it has expired, and the law must be amended to provide for such extensions by an act of Congress. Many inventors and manufacturers consider seventeen years too short a time for the monopoly which is given them under the present law, and there have been several attempts to increase the term of monopoly upon payment of certain fees and the like. All such attempts have not been successful and in view of the present opposition to legal as well as illegal monopoly it does not seem likely that a more liberal policy will be taken in the near future.

When to Apply for a Patent

Attorneys as a class generally urge prompt filing of patent applications for obvious reasons of their own and in view of the procrastinating tendencies of human nature much may be said in favor of this course. When an application is filed too early, the applicant is reasonably sure to make material changes and improvements only to find that he cannot alter his filed application. Accordingly a new or additional application may be needed and the patent examiner may decide that the second application is unpatentable over the original application. The advantages of prompt filing of applications are however quite substantial and obvious.

CHAPTER XI

PATENT RIGHTS AND HOW THEY ARE UTILIZED

The Rights of the Patentee. — If indeed a patent is difficult to obtain, for some might well refute such a supposition, it is well worth all of the efforts which have been expended to obtain it. It grants a right to the patentee which is unique and which is of wider scope and greater import than almost any other right which may be obtained.

By complying with all of the requirements provided and imposed by statute, the inventor acquires in fact three great rights of monopoly; namely,

1. The exclusive right to make his invention for the full statutory term of seventeen years.
2. The exclusive right to use his invention for the full statutory term of seventeen years, and
3. The exclusive right to sell his invention for the full statutory period of seventeen years.

All of these rights are granted as exclusive rights throughout the territory of the United States. These rights are also granted to his heirs or assigns. A patent thus becomes very valuable property in spite of the fact that the inventor may die or become otherwise incapable.

In addition to the foregoing rights the inventor also acquires the following, by reason of the interpretation of the foregoing according to well-established principles. These principles have been repeatedly upheld and are practically indisputable under the present statutes.

The patentee obtains the right to exclude all others

from making, using, or selling the patented products, machines, or processes. If another makes, uses, or sells (singly or combined) the patented invention, without his will and consent, he may obtain an injunction against further infringement as well as a recovery of the profits thus made, by applying to the courts. Identical rights are enjoyed by the party or corporation who purchases the patent outright. The restricted right to make, sell, or use the invention may be sold or rented as desired by a system of licenses. The rights may be divided, classified, restricted, and disposed of in any manner desired. The owners of a patent also acquire the right to monopolize an unpatented article through their ownership of the patent. The principles underlying this broad form of legal monopoly can be best understood from a study of the recent Dick case, and the reader is referred to the record of this case. A complete copy of the decision may be obtained for 10 cents by ordering a copy of the Official Gazette dated March 19, 1912.* It may also be remarked that the decision in this case has stirred up a great wave of opposition which may mean hasty legislation to the detriment of the inventor.

The usual method employed is to license the machine for use only on condition that all of the supplies should be purchased from the owners. Thousands of dollars are diverted into the pockets of the owners in this manner. The courts have also upheld the right of the owners to regulate the selling price. Thus a certain make of safety razor is licensed for use only when sold at a specified price, *e.g.*, \$5. Although such razors in fact cost less than one dollar to manufacture, and are sold to the retailer for about \$3, the latter is required, under penalty of being declared an infringer of the patents, to sell the same at a uniform price of \$5. Further, the

* See also digest in Appendix.

customer in buying the razor, automatically acknowledges the patent and contract and may not sell it second hand for less than \$5 under a similar penalty. Further, it is provided that a mere attempt to resharpen the blades opens him to the charge of infringement. There are numerous other examples, similar to this one, with which the readers are doubtless familiar.

According to a recent decision (Bauer Co.,-O'Donnell case), a limitation has been placed upon price restrictions under the patent statutes. A nerve tonic made by a patented process was sold under a price restriction to a retailer, who cut the stipulated price. O'Donnell, the retailer, contended that he could disregard the license sale restrictions, selling the product at his own price or even giving it away, because he purchased the tonic from a wholesaler and not directly from the owners of the patent. Resale prices, he argued, could not be controlled in this case by the patentee, for the patentee could not claim further rights in the property after it had been sold and delivered to the wholesaler. This test case was passed up to the Supreme Court and decided in favor of O'Donnell. It appears then, that retailers purchasing goods in this manner may no longer be held for infringement if they cut the stipulated prices. The decision is distinct from the Dick-Henry decision and merely disproves the assumption that a patentee may retain the control of the selling price regardless of the number of hands through which the article or product passes. Many articles, from dress hooks to talking machines, are affected by this decision. It seems likely, however, that manufacturers, in some cases, can change their selling plans to an agency or other plan to eliminate the broker, jobber, or wholesaler, so that this decision will not prevent them from maintaining the retail prices of their goods.

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Another custom in general use is to merely rent the machines upon payment of a sum which is generally sufficient to more than cover the cost of producing the machine. A royalty is then charged upon each article made, or each operation which the machine makes. The title is always retained by the owner and the licensee may be further required to agree to use no other machines except those made by the owner referred to. The owner may further provide and require a contract which practically forces the licensee to admit the validity of the enumerated patents, to agree not to alter or improve the apparatus, to pay the owner for the upkeep of the machine, such as repairs and the like, to replace worn or broken parts only with parts obtained from the owner, to make only a specified kind or class of article, to furnish accurate reports of the quantity manufactured or used, and not to use any other than the specified machines for accomplishing the operations. The licensee may even be prevented from terminating the term of the license. Failure to comply with the contract gives the owner the right to remove the machinery or take it away from the licensee. The licensee can thus be made essentially a commercial slave of the owner of the patents.

The foregoing shows practically all of the requirements which may be attached as conditions to the use of a patented invention and are not exaggerated. In fact the foregoing is essentially the policy pursued by such corporations as the shoe machinery trust. Such monopoly is bitterly fought though in some cases such a fight is of little avail. There is at the present time a decided sentiment against such extreme limitations.

When the patented articles are sold directly to the public the operation is less difficult, and the restrictions are quite generally adhered to. The public seems to have awe and respect for the words, "Licensed only for

use with, etc.," "Any other use will constitute infringement of our patents, etc.," and similar clauses. It is generally arranged so that a mere purchase of the article is supposed to bind the user to the specified terms. Of course it would never pay the individual to fight the matter, nor would it be possible to prosecute all in this class of infringers, even if they could be reached.

The examples just outlined are considered abuses of our patent system by many people. The question arises as to whether it is within the meaning of the law, in spite of the fact that experts of the law have repeatedly affirmed this very question. As a result of our liberal patent system the people are able to enjoy great comforts and conveniences. The people who object to patents and the rights which they give the patentee are the very ones who seek to enjoy an invention without paying for it. It is just as reasonable as seeking food, shelter, medical service, or the like without paying for the privilege. Do these people ever stop to consider all that they *owe* to inventors? To be sure the real inventor often gets but little or none of the real profits which accrue from his invention. This is probably the only weakness in the foregoing argument.

The patentee, then, acquires a very elastic and vastly important group of exclusive rights by reason of a patent, and he should therefore not lightly dispose of his rights. In spite of the fact that all of these rights are supposed to belong to him, it happens more often that others purchase these rights for a comparatively small sum and make them the basis of a subsequent fortune. Many inventors fail to realize all that a patent really means and are unable to avail themselves of the full benefit which should accrue from it. In nearly every case which has become famous by reason of the

immense profits accruing by a proper exploitation of the patent, the profits have accrued to skilled promoters rather or more than to the inventor.

To be sure, the inventor is quite liable to overvalue his patent, particularly if it is for a mere improvement. As pointed out before, the mere fact that an invention is patented does not mean that it is valuable or of more use than if it had never been patented. Many inventors are led into believing that any idea which is allowed a patent is sure to bring an immediate fortune and learn otherwise in short order. It is an expensive education. Just how much "certificate attorneys" with their literature are responsible for such conditions is problematical. It is understood that the items noted in this chapter are applicable to patents having subject matter of merit and value, and which are legally strong. Even patents with meritorious subject matter cannot be considered in this chapter unless they are also legally strong. Weak machine-made patents with one or two limited claims could not for an instant withstand attacks from infringers or others who will often fight to the last ditch before giving in to the inevitable.* A more complete idea of this matter can be gained by a study of the cases which are constantly adjudged and from the following points.

If the patentee demands too much his invention will not be taken up, or if taken up it will soon lead to less objectionable substitutes. Unless these substitutes can be bought up the monopoly cannot last for any time. The whole gist of the relations between the patentee and the public may be found in the following comment taken from an important decision.

"Within his domain the patentee is czar. The people must take the invention on the terms he dictates

* Damages cannot always be collected even then.

or let it alone for seventeen years. This is a necessity from the nature of the grant. Cries of restraint of trade and impairment of the freedom of sales are unavailing, because for the promotion of the useful arts the constitution and the statutes authorize this very monopoly."

This principle is very clear and can only be altered by amendments to the constitution or the statutes. It is again repeated, that the inventor should not lightly dispose of these broad rights.

Joint Owners. — Joint owners may each *independently* dispose of the rights to a patent to any extent and license others to do so, without joint contribution of profits, this holding true without regard to the relative interests of the joint owners. A special agreement may be made between the co-owners to change this principle. Such an agreement should be made for the protection of all parties concerned, otherwise the partnership may act like an ordinary partnership except that the more alert party will very likely take undue advantage over the other party or parties.

A patentee may dispose of his rights in bulk or severally or by licenses or restricted grants to others, or he may forbid all others from making, using, or selling his invention, or he may use it himself exclusively or he may neither use it nor allow others to use any of the rights.* He may also dispose of only a part of his rights if so desired.

Patents are Property. — A patent is a form of personal property and becomes a part of the estate of the

* It is estimated that only 2 per cent of all German patentees work their inventions or allow them to be worked in the United States in spite of the fact that they are for the most part assigned and valuable. This item should receive attention since the result is obvious.

patentee upon his death if it has not otherwise been assigned. The executors or administrators then obtain title to the invention and its sale is subject to the approval of the Probate Court like other property.

The patentee cannot be deprived of his patent rights without due process of the law. This due process may include only constitutional decrees of courts and does not embrace legislative acts by Congress or other Legislatures.

Regulating Laws. — Patent rights cannot be seized and sold under the authority of a writ or other execution of the common law. Patents may be reached by a creditor's bill in equity, however, and the patent may be ordered sold under the direction of the court in default of payment of the judgment upon which the bill is based.

The United States as a government or any of the officials has no more right to use a patented invention without license than has a private citizen and may not use it without due compensation to the patentee.

No state can interfere with the monopoly which a patent affords, except that it may make reasonable regulations respecting the transfer of patent rights for the purpose of preventing its citizens from fraud. It may require a certified copy of the letters patent to be filed in the office of the county clerk together with proof of the authority of the vendor to sell such rights, before such rights are sold to one of its citizens in that county. A state may further require that a note which is given for a patent right shall so show on its face or shall otherwise be void.

A state may also regulate the making, selling, or the using of the things covered by the patent. This includes all of the regulations, such as police, factory, and other laws provide. The things covered by patent

are also liable to the law of common carriers, revenue laws, and laws which are applied to other things, such as police regulations, etc.

There are, then, some slight restrictions which tend to keep patent rights within bounds.

Marking Goods Patented. — Every person making or selling a patented article is required to stamp or brand the word "Patented" thereon, together with the day and year on which the patent was granted. A like notice may be placed on the package containing the article or affixed to the article instead of stamping or branding it in the article. If neither of these alternatives is done, the patent is not rendered invalid but if the patent is subsequently infringed, no damages can be collected unless it is proved that the infringer continued the infringement after he had been duly notified. The manufacturer can mark a patented article "Patented" even after the patent has expired without legal liability. There are many articles, so marked, in use to-day, which have not in fact been patented since a number of years. The false marking of goods with the word "Patented" or words of similar import is a criminal offense, and is punishable by a fine of not less than one hundred dollars together with costs. Any one may bring action in such a case and one-half of the penalty accrues to such a person for bringing the suit for the same. Articles cannot be marked patented to deceive the public without being liable to the foregoing. Not a few nonpatented articles become generally understood as patented without apparently interfering with this law, however, by reason of registered trademarks which are used in conjunction with such words as, "Registered in U. S. Pat. Office". Patented (?) medicines are one example of this evasion.

The foregoing remarks are all based on numerous

decisions and are well established. It may also interest some readers to know that

An attorney has a right to retain possession of letters patent until all fees are paid. (16 O. G. 1004. *Ex parte* Bowers.)

Further Applications of Patents; Restrictions; Combines

A good patent is not limited to any one art or application in some cases and may be a veritable gold mine by reason of its application to several arts. The several arts may even be noncompeting and the separate rights disposed of or licensed for a sum equal to that ordinarily obtained for all of the rights. As examples, there are the cases of vulcanized rubber, in which the rights to the several arts were finely divided and disposed of; the application of a principle employed for dental apparatus to a similar purpose in speed recorders for automobiles; and the application of a drying process intended particularly for use in the manufacture of powder to the manufacture of cereals for foods, as well as a number of others.

The patentee may dispose of his three main rights severally. Thus a manufacturer may be licensed to make the invention and nothing else, with subrestrictions if desired; a second party may be licensed only to job the device of the invention with suitable restrictions; and the right to use may be disposed of to the consumer with still further restrictions. A triple tribute to the patentee may thus be exacted.

When only a part of the territory of the United States is included in an assignment or license, the patentee reserves all other rights which have not otherwise been disposed of. If the party thus licensed operates in

other territory than that specified he can be sued as an infringer. Whenever possible, the greatest profit can generally be acquired by the patentee by territorial assignment or license of the patent rights.

The restrictions which may be placed to limit the use of an invention are very broad and various. In addition to a few cases already mentioned, the patentee may place restrictions as to selling and reselling prices, the quantity that may be used, the length of time that it may be used, the conditions under which it may be used, and so on. There are numerous illustrations of these points and all are doubtless familiar to the readers. We might mention the restrictions specified in the sale of phonographs, mimeographs, and various other machines.

Patent rights may also serve as an excuse, if not a justification, for various trade combines. Such combinations become legal when the asserted purpose is to secure and protect patent rights for the benefit of those concerned. By an ingenious system of licenses such a combine can be made valid and very effective. The agreements can be rigidly enforced, limiting the various members to certain territories, output, etc., as desired. Types of this use of patent rights are embodied in the Automobile Manufacturers' Association, the rubber combine, the Last Makers' Association, and several others which are generally well known. Such practices are now in disrepute. In the "big business" legislation which is now engaging the attention of Congress it appears likely that all interlocking combinations will be designated as illegal.

Undivided Rights. — It is a peculiar fact that when a patent is owned by two or more parties, even if one only is the inventor, each party acquires the right to dispose of any and all rights independently from the other

parties, even if the relative ownership is unbalanced. An owner of only one-fifth of the interest in a patent may thus acquire far greater profit from the disposal of his share than the inventor with a four-fifths share. Joint inventors have similar rights in respect to disposing of their several interests. A limiting contract may of course be provided.

The scope of worthy and protected patent rights may thus become enormous and is of great breadth. Indeed, the possibilities of patent rights are but little realized by the majority of people, including patentees themselves. To be sure, if the subject matter is not valuable or the patent not protective, few if any of the valuable rights of a patent can ever be utilized or enforced for profit. This principle is obvious and may be compared to the staking of a claim to a piece of valueless land. If such a claim to a few square rods of land were staked in an isolated part of a desert, for instance, the staker would certainly have the undisputed right to the land, for no one would disturb him. Such a claim would not greatly benefit him or any other person, and in this respect it forms a good comparison to patents, not a few of which possess an identical value.

Other Points. Assignments. — It has been held that the separate claims of a patent cannot be assigned. Partial rights to all of the claims are always implied when all rights are not specified. When provisions are attached to an assignment, it amounts to a mere license and not an assignment. Provisions are generally attached to protect the inventor or patentee from unwarranted action, as in the case of undivided assignments. It should be provided that the co-owners have relative rights which are dependent upon the sanction of the other co-owner. Another fallacy should be evident, as follows:

Assignments which are made conditional upon the payment of money or its equivalent upon its being recorded in the Patent Office are in fact not conditional. The Patent Office does not investigate to ascertain if the conditions have been fulfilled before entering the assignment. An assignment may, however, be canceled upon the written consent of the parties concerned. In case of fraudulent agreements in which the inventor or patentee is injured, a second assignment can be made for the same rights, and remedy may be had in the courts.

Any assignment or contract relating to patents should be recorded in the Patent Office without delay. Assignments are generally delivered at the time that the equivalent sum is paid over.

A patent may be mortgaged like any other property in order to secure a loan or other obligation. The mortgagee is given an assignment of the rights which is recorded in the Patent Office. This gives the right to sue infringers and other rights until the patent is again redeemed. The redemption of the patent is accomplished by meeting the obligation as agreed upon, and the assignment is rendered null and void.

Licensee. — A licensee is not an owner of an interest in a patent. He cannot therefore sue infringers in his own name, or subdivide or transfer his rights. He may, however, do the latter if an agreement to that effect is made.

A shop right is a license to make the invention at a certain place, and is not transferable, except that a partner retains the right to the same in case a partnership is dissolved and the business continued.

The foregoing is intended to be suggestive rather than exhaustive and will be found to be all that is ordinarily needed.

CHAPTER XII

DISPOSING OF OR LICENSING PATENT RIGHTS

"A subject difficult indeed,
Easy or hard or full of greed." — *Author*.

THE above is only too true, for the disposal of patent rights is difficult. It is a problem which practically every inventor must meet and which is either easy or hard as the case may be and in which either one or both parties to the bargain are very careful to see to their full rights and protection, with the secondary object, of course, of securing the greatest profit possible, even at the expense of the other party.

The general nature of patent rights and their value has been shown. There are five general ways and means of disposing of patent rights. These are:

1. The outright sale of all rights without restriction. This includes contracted assignment as well as the sales mentioned.

2. The partial sale of all rights. This includes undivided interests, divisional interests which are restricted to specified purposes, and territorial divisions which are restricted to certain territory.

3. The unrestricted license to use, make, and sell the invention. Such rights are generally partially restricted and provide for licensee's regular payment of royalties upon an agreed basis.

4. The restricted license. This includes territorial, divided purpose, partial, and other restricted licenses.

5. Neither complete nor partial sale or license or assignment or any use may be made of the invention.

This may be done for a definite purpose or because the patent rights are worthless and cannot be disposed of.

The disposal of the patent rights is a problem which is of the greatest importance to an inventor and in most cases it is the final step or the fulfillment of the whole cycle of steps from the time that the invention was first conceived. Call it greed if you so desire, but it cannot be denied that the hope for profit is the chief incentive or equal incentive (the hope for fame being the other incentive) which supports the majority of inventors and prompts them to create and patent inventions.

To be sure, there are some, — for the most part pessimists or persons incapable of inventing or appreciating the faculty in others, — who argue that it is unscientific and unprofessional to patent inventions and that they should be given to the public in the same manner that great scientific principles and discoveries have been in the past, *i.e.*, without exacting compensation other than the resulting fame. This may be an ideal plan perhaps, but in practice it would not be satisfactory. In proof of this it is necessary only to refer to the great squabbles and disputes, which have resulted among the very scientists and professional persons specified, in the past. Not a few of the discoveries have been bitterly protested and fought and the disputes over priority have amounted to regular professional warfare in some cases. To be sure, at rare and infrequent intervals some kind-hearted inventor will unselfishly and voluntarily dedicate all of his rights to the public. This is highly commendable, but have many or any of such dedicated patents ever been utilized or become of value to the public?

Dedication to the Public. — At the present time if such an unselfish inventor desires to dedicate his invention to the public he must do so at his own expense, *i.e.*, paying all fees, the cost of development,

and other expenses. It may puzzle some people why a patent is applied for in such cases and why a mere publication would be insufficient. The reason is that others might subsequently patent the same invention and obtain credit and profit for it. The inventor who dedicates the invention to the public voluntarily thus receives recognition of priority and, theoretically at least, the fame. It has even been proposed that such inventors should be privileged and be entitled to this kind of patent without the payment of fees. The chief drawback to such a plan, of course, is that many unworthy cases and worthless patents would be piled into the records and the volume might even reach the point where it would interfere with the regular Patent Office transactions. The unknowing dedication of parts of an invention to the public through ignorance or poor judgment in applying for and prosecuting an application for a patent is of course not a recognized dedication to the public although it amounts to practically the same thing in a large number cases. Not a few cases are on record in which valuable rights have been unwittingly dedicated to the public in this manner.

Selling Patent Rights. — But let us consider the actual method of selling patent rights. To begin with, it should be noted that each case is likely to present its own difficulties and to demand its own treatment. Whatever is said in this chapter will not serve to effect a sale of a patent if the individual is a poor salesman or the patent a poor piece of property to sell. Mere statements cannot serve to sell a patent any more than the statements in an earlier chapter can serve to make an impossible person a real inventor. The degree of success, then, depends upon the nature of the subject matter, its novelty, the personality of the patentee, the strength of the patent, and, above all, its commercial utility and

need. The following is offered merely as good suggestions.

It must be admitted that the better the subject matter, the easier the patent will be sold. The same general principle holds true with respect to the other items which will presently receive attention. This does not necessarily mean that one invention will become useless because of its subject matter, but it does mean that the value depends to considerable extent upon the subject matter. The subject matter may become valuable by reason of its great novelty, utility, essential improvement over the prior art, the demand for the same, and its commercial practicability, or one or all or other combinations, or for these and still other reasons. It is not necessary to go into the details of these various items for they are well established and understood. It should be clearly established that a patent with poor subject matter or worthless subject matter will be difficult to sell if indeed it can be sold at all. This is an essential principle and cannot be overestimated. In short, to be a success, the subject matter must be for a step forward and not backward in its art, for a practicable, and for a needed invention.

The degree of the value which is embraced by the subject matter itself varies greatly and there does not seem to be any set standards. A comparatively simple and insignificant invention *may* bring big results, or again more often it may *not*. Again, revolutionary inventions (this means real revolutionary inventions) may start immense fortunes or be only something for which there is no immediate market. The tendency is to exaggerate the relatively few big hits when in fact a much better idea of the patent situation could be gained by reference to the vast bulk of patents, — moderate successes and failures well mixed and digested.

The Title which the Claims Afford. — Aside from good subject matter the most important item is that the claims should afford a clear title. The claims to a patent of value must protect the subject matter. This item is of the utmost importance and will be still further discussed in the chapter on infringements. The modern business man has some or even a good idea of the requisites of a valuable patent and it is useless to try to fool him. He can tell at a glance whether or not the subject matter is good and whether or not the claims afford a clear title. Or, if he does not trust to his own judgment, he is sure to employ an attorney to examine into the validity and scope of the patent. In fact, he would be unwise if he did not do this. Regarding the composite business man to whom the patent is to be offered as a sound and experienced individual it is unreasonable to expect that he will be overawed by a patent and will accept the same without rigid examination. He has learned from bitter experience and knows that the patent is of little or no use without good subject matter and good protection. He is quick to realize the defects in a patent and may even appropriate the essential principles by making some minor changes without paying one cent of tribute to the owner of the weak patent. Why pay for what he may have gratis?

Too many inventors arrive at this stage only to find that their patents are valueless and cannot be sold at any price. The experiences of others should prove an object lesson to every reader. Nor is the inventor the only one who is misled. Quite often an inexperienced investor is misled and loses a part or all of his worldly goods in aiding in the exploitation of a hopeless case. The author is aware of several cases in which such persons have deliberately put themselves into virtual

bankruptcy on account of a worthless patent in the expectation of getting rich over night.

Examination into the Scope and Validity. — Past experiences have resulted in an almost universal caution on the part of wise parties and a patent is seldom purchased or rented until its scope and validity have been investigated. This may seem a superfluous step to the layman but it is very necessary. No sensible party wishes to purchase a patent which may only be an infringement on existing patents. How else is he to know this fact for a certainty? Then too he wishes insurance against possible escapement from the claims of the patent and against possible infringement.

As has already been pointed out, the mere grant of a patent does not insure the patentee in this manner. While it is puzzling, it is nevertheless true that a patent may be granted in spite of the fact that it is an infringement of a prior patent, that it may not cover or protect the invention, that it may allow of avoidance and successful infringement, and so on. The only possible manner in which scope and validity may be insured is by a thorough after examination by experienced lawyers. Such an examination means practically a reëxamination into the records with great care and regard to the matter contained in the claims. Such an examination is generally expensive and the exact amount depends largely upon the nature of the case. It is as essential in view of the present status of patents as is a search of titles before purchase of real estate. Such a search may merely serve to substantiate a patent or again it may show it to be void. In some cases it may be found that there are one or more other patents which are sufficiently broad to include it. Often these prior patents may prove to be undeveloped or inoperative and may be purchased for a relatively small sum, making an increased protection possible.

A Sales Folly. — It seems necessary at this time to mention the folly of trusting to attorneys who claim that they sell their clients patents free or for a percentage, to the free advertising which some attorneys offer as an inducement to engage their services, to concerns who call themselves fiduciary corporations and the like, and to similar schemes.

In the first place it is beyond reason to believe that an attorney concern can sell every patent which comes their way in spite of the fact that they make the same offers to each client. In fact it is doubtful if even a few of any cases are thus disposed of. The so-called free advertising which some attorney concerns hold out must also be classed as a folly. This wonderful free publicity generally consists of a few words in tiny type sandwiched in with from fifteen to thirty-five or more similar announcements, all put into the space of a few inches in some manufacturer's journal or attorney's house organ, or the classified columns of a daily paper. Such free service costs the concern a few cents and is likely to be worth still less to the client. If an advertisement is to aid in the sale of a patent at all, it should give a prospective purchaser some idea of what it is, what its advantages are, and so on. This being true, who can fail to see the true purpose of such offers?

Whether or not it is proper for attorneys to sell patents upon a commission basis is a point open to discussion. Certain it is, that this feature as practiced by some is far from proper. The same may be said with regard to the lists of manufacturers offered by some concerns. What chance has an inventor when hundreds of other inventors have been using and reusing the same list to death? Is it not probable that the manufacturers on the list become wearied by repeated solicitation?

Agency Schemes. — But the greatest folly is perhaps embraced in the various selling agency schemes. These concerns operate under various names and plans but the general scheme is the same. The prospect is approached as soon as his address has been obtained and is told how wonderful and valuable his invention is, how there is a big manufacturer ready to pay a large sum for rights to the invention, and similar flattering and alluring statements, generally concluding with some kind of a request for a sum to further the interests of the prospect, to make an after examination to ascertain validity and scope (which is apt to be fraudulently conducted), to print copies of the patent for distribution to manufacturers, to furnish cuts to illustrate the invention and so on. The sum and total of the effect of such schemes is to separate the inventor from his money without rendering him any valuable services in return. The exact nature of the scheme is immaterial since one and all have a similar result in view. The author has examined some of these so-called manufacturer's lists and patent-selling journals. In nearly every case the manufacturer received it in the mail without asking for the same and if the office boy was not sufficiently interested it very likely found its way into the waste basket or waste paper press. As an example, one of these lists contained the names of several companies obtained at random from such a record as Bradstreet's and upon investigation it was found that few of these manufacturers, whom it was said were ready and anxious to purchase patents, were prepared or even desired to so purchase, some of the concerns being in fact unprepared to even consider any kind of patent purchase. Not a few of these schemes have been discovered and stopped by the postal authorities but some continue to operate at the present time. Some of the schemes are particularly

clever and net the operators many thousands. Any readers who receive such offers would do well to forward them to the Post Office department with a statement of the matter. To be sure, in some rare cases alert manufacturers may make direct offers to the inventor as soon as their attorneys have reported the matter and such cases do not come under this head. It is very seldom that the manufacturer hunts for the inventor in this manner and it is not advisable to wait in hope of being favored with such attention.

Promotion Plans. — Tricky promoters are also to be regarded askance. Their general plan is to supply capital through well-known promotion plans and stock selling schemes and to take some 30 per cent as their share for their services. The fallacy of the plan should be evident and at about the time that the whole scheme is about to fail the promoters are generally noticeable for there unknown whereabouts and the inventor must meet the responsibility alone. Some of these get-rich-quick schemes have taken in leading inventors and netted the promoters thousands of dollars. These cases are doubtless well known to all of the readers and further comment seems unnecessary. Such schemes have even been successfully conducted upon no sounder basis than patents applied for and illustrate the general ignorance of patents on the part of those who invest. In fact one result from experience with such schemes is that the wary investor has come to regard even meritorious patent projects with suspicion. This is unfortunate for all concerned, for thousands of dollars foolishly invested in impossible schemes might much better be used to develop meritorious patents which go begging for want of capital.

Whenever possible it is undoubtedly the best plan to deal with persons who are personally known for their

responsibility and integrity. Whatever plan is pursued, the highest type of salesmanship is necessary.

Partial or Total Assignment Before Issue of Patent. —

It is very desirable in many cases to dispose of part or the entire interests of a patent before it is applied for or while it is in application. This is perhaps the most difficult branch of the tasks of an inventor and is full of pitfalls. Duplicate correspondence should always be preserved in such cases. It should be remembered that the prospective buyer will not pay for what he may take gratis. In case a partial assignment or total assignment is made for a specified sum or salary before the patent is applied for, both parties should take care to avoid misunderstandings. It is a general practice at the present time to assign a part interest in a patent before it is applied for in order to secure the funds necessary for development, fees, and the like. The inventor who secures an interest in a meritorious invention for a comparatively small sum is indeed fortunate. Employees are often forced to assign their patents to the employer by a contract which is signed at the time of entering into the position, and the courts have held that such a contract can be rigidly enforced even if no other compensation other than an ordinary salary is provided for. Inventors should think twice before selling and signing away all rights to any inventions which they may ever make either while employed or afterwards. To show the risks taken in disclosing an invention to a party or corporation before it is protected, or even afterwards, the following paragraphs from the *Business* magazine are quoted.

“Competition threatens every business. Generally unexpected, it makes severe inroads into a concern’s profits before a combative plan can be devised. Many are the cases on record where a skillful competitor following a carefully planned campaign has captured

trade held by a concern lulled to self-complacency by easy sales and large profits.

The military maxim of world powers, "In time of peace prepare for war," can well be followed by the powers in the world of industry. One of the greatest specialty concerns in the world owes its dominance of the market to its anticipation of competition. In the words of one of its directors: "Competition is the logical outcome of success in any branch of business. The moment a concern demonstrates that its proposition is sound, it becomes the target for competitors' shots. The imitator is always present who either believes that he can produce the same goods at less cost, or who is content to take smaller profit than the concern first in the field."

From its inception the concern in question has anticipated competition. One of its first moves was to maintain a staff of skilled inventors whose sole duty was to originate improvements in the product. The head of the concern maintains that if, with the intimate knowledge of the product possessed by his company and its inventors, they cannot keep ahead of competitors, then they deserve to suffer loss.

A skilled patent attorney was installed at the factory. Two duties were his: first, to protect the concern in its patent applications; second, to watch government reports of patents obtained by outsiders on mechanism of the nature of that produced by his employers. The moment an outside application is made for a patent on a mechanism relating to the company's product, the attorney concentrates his whole effort on the case. If on investigation the patent be found valueless, complete data is gathered and filed and the case dropped. But should a patent show promise or cover some new mechanical principle, two courses are followed: first, a thorough investigation is made to see if it infringes in any way upon patents held by the company; second, the company's staff of inventors is instructed to concentrate effort upon finding a way to improve on the outsider's patent. Should this prove impossible, an effort is made to secure control of the patent. By thus anticipating competition the concern can either stifle it at the outset, or, when this proves impossible, lay advance plans to combat it when it becomes a reality.

Cost of production is a vital element in dealing with competition. Improved processes of manufacture often enable a competitor to undersell, thus giving him dominance of an existing trade laboriously built up by other concerns. In almost every line of trade outsiders are engaged in perfecting machinery that will cut the cost

of production. By immediately adopting such machinery a competitive concern gains an advantage over the conservative concern whose trade it covets.

A concern in the Middle West, notably free from competition, searches Patent Office reports for indication of the perfecting of improved machinery in its line. The inventor is immediately approached with a liberal proposition, either to sell his patent outright or to give the concern first call on his invention. Diligence in thus forestalling competition has enabled this concern always to keep ahead of competitors."

The foregoing also points out other important matters. The outside inventor must "have the goods," if he is to succeed at the present time.

Selling Plans; Personal Solicitation; Precautions

If it is desirable to dispose of a patent to some manufacturer it is highly important that the right manufacturer be approached in the right manner with something worth selling. Classified lists of manufacturers can be obtained or can be purchased from any of the many companies specializing in furnishing reliable lists. It is always advisable to ascertain the commercial standing of the prospective purchaser. If the manufacturer selected must be reached by correspondence, such correspondence must be clearly and properly conducted. Remember, the purchaser wants to know everything possible about your invention in the most concise manner possible. He wants to know how it works, how much it costs to make, if it is patented, what protection the patent affords, and so on. It is necessary to prove to him that it is to his advantage to purchase the patent rights offered. Photographs, drawings, and models, severally or jointly, are valuable to further the transactions but none should ordinarily be sent until the possible interest of the purchaser has been ascertained by polite inquiry. It is merely a waste of time and money to

pester an impossible prospect with your plans. The merits of the invention should always be pointed out and if there are prior patents it is just as well to mention them and the advantages of the patent over the prior art, because they are sure to be discovered later under less favorable conditions. Circulars can be used, but personal letters are much to be preferred. Cheap circulars are of but little value if any.

It is not wise to make the mistake of asking a price until such information has been asked for or until the prospective purchaser has signified his desire to acquire the patent rights. In the first communications a time limit should generally be fixed to insure against unnecessary delay. It is a mistake to make the same offer to more than one party at the same time in most cases. Never indulge in rudeness in any of the correspondence. It may even be well to secure the services of a trusted and skilled friend to conduct the negotiations for you. If the patent is valuable, protected, and for subject matter essential to the purchaser, it is only a matter of time until the matter is finally settled. It is always much better to ask for an offer than to state a certain price, since it gives the purchaser and the seller, particularly the latter, due advantages.

Without doubt the best method of selling patent rights is to go to see the prospect personally. If you have not the necessary confidence in your ability to present your viewpoint, nothing which can be suggested herein can aid you. A study of salesmanship by means of a good text on the subject is of course advisable. Otherwise, the best policy is to have some skilled friend do the selling for you. The average purchaser wants to be fully shown and it is always advisable to make an actual demonstration whenever possible. In fact, patent selling is a straightforward business procedure and suc-

cess is inevitable when the patent affords a clear title to meritorious subject matter.

Aside from an outright sale of all rights, the various rights may be divided and sold separately or licensed in whole or part. Such procedure is often very advantageous but is apt to be full of pitfalls. No contracts should ever be signed without trusted legal advice. The cases in which inventors have been fooled are numerous and should serve as object lessons to others. In fact, it is also advisable to get dependable advice as to the best method of disposing of patent rights. One case may demand a different treatment than another and it is unwise to proceed in ignorance of the possibilities. For instance, a patent for an agricultural device would very likely net considerably more when disposed of by territories, such as states, counties, and districts than in the whole, and it is quite likely that a limited right will net as much as a total right.

The Scope of Shop Rights. — A shop right is in the nature of a license to manufacture the device of the patent in a specified factory. Unless the right is restricted by royalties and as to total production, such a right is open to great abuse and the shop right may grow to such proportions as to exceed the total remaining rights other than the shop right. Limitations are desirable in order to protect the sales under other rights. Shop rights should be drawn up with trusted legal advice. (See also Chapter X, Employer and Employee.)

Concerning Royalties. — A royalty is in the nature of a tax which a licensee pays for the use of a patent right or rights. The exact basis and amount of the tax as well as the method of collecting it varies with nearly every case. Generally a certain percentage or amount is agreed upon and is governed by the rate of production. Pitfalls to consider are, (1) to avoid giving the manufac-

turer the right to make as many or as few as he desires since his desire may be none and there will be no royalties; (2) to provide for forfeiture of the license so that the manufacturer cannot avoid paying royalties or upon nonpayment of a fixed royalty which is the minimum and which must be paid whether the patent right is used or not. The patentee should also retain the right to terminate a license upon poor faith on the part of the manufacturer, should provide for a true accounting of the exact number of articles manufactured or sold, and should provide for the right to examine the manufacturer's books upon unsatisfactory statements which may be given to him. Never sign a contract of any kind without having it examined by competent lawyers since such contracts are apt to be full of pitfalls and shrewd provisions which are against your interests. Both a cash consideration and a royalty can often be obtained.

It is perhaps well to caution that if the patentee becomes too unreasonable, he will find himself without a second party to his projected transaction. When the invention covered by the patent is actually valuable, royalties are a very desirable form of remuneration and are very equitable to all concerned. They protect the manufacturer against valueless or void patents and the patentee against too little compensation. Indeed the manufacturer may require the patentee to guarantee him against infringement suits and other complications.

All agreements with respect to patent rights should be put down in writing and duplicate copies should be preserved. Oral agreements are unsatisfactory and are very difficult to prove in case of disagreements. All such contracts and assignments should be recorded in the Patent Office. Once an agreement or assignment is made it can seldom be retracted, but in some cases, recourse may be had to the courts in case of undue injury.

The Inventor as His Own Manufacturer

Many successful inventors are their own manufacturers; they market their own inventions. It is generally conceded that the most profit can be derived in this manner provided that the inventor possesses the necessary capital and business ability.

Patents as an Investment. — The possibilities in patents to an investor are enormous. There are numerous cases in which the increment on a patent far exceeds any increment possible in real estate or stock values. When it is further considered that there are at the present time hundreds of meritorious inventions just needing a little capital and promotion for success, it is surprising that more investors do not avail themselves of the opportunity.

Shelved or Buried Patents. Inventor's Staffs. — In spite of repeated denials, it is a fact that there are patents which are purchased and then never developed. Possibly the only part of such methods which are open to attack are those which avoid fair competition and those which prevent the public from the use of valuable improvements. This policy is undoubtedly pursued by some of the largest corporations. For the most part, however, a patent is not purchased unless it is valuable and can be used to advantage. It is argued that the coming of professional staffs of inventors into commercial life is intended to stampede and discourage individual effort. The facts in the case are that no one inventor or groups of inventors can invent everything, no matter how much ability and capital they may have. In spite of their inventor's staffs, corporations purchase a number of patents from outsiders each month. The proportion of such patents which are never developed is of course problematical, but the fact remains that an

outside inventor can secure favorable terms from anyone if his invention is really meritorious and well protected. In fact, there seems to be no reason why an inventor cannot provide against nonuse of his patent by a contract to that effect when the invention is sold. There is no such condition as can force an inventor to sell to any one concern since modern competition gives him several alternatives. In fact, the competition in some lines of business has been a great aid to inventors and in a few instances, the competing concerns vie with each other in the attempt to secure the patents for improvements in their line.

The Government as a Purchaser. — The Government stands ready to purchase or otherwise acquire rights to inventions which are of real merit and of real use to any department of the varied services. The general procedure in all cases of this kind is to call the attention of an interested bureau or department to the invention. The inventor may even do this before the patent is applied for with a reasonable amount of safety and in many cases he will receive expert advice as to the practicability of the idea. The law particularly provides that patent applications aided by a department of the Government in this manner, receive preferred attention in the Patent Office.

Exploitation by Companies and Corporations. — The patentee can often best further his interests by forming a corporation to develop and manufacture his invention. The usual method is to secure a majority share of the stock and sell the remainder to others. A corporation relieves the incorporators from personal responsibility and by a popular stock-selling campaign funds not otherwise obtainable can be raised. This method should never be adopted unless the invention has actual merit since the company will otherwise fail sooner or later.

Information relative to the formation of a corporation cannot be given in this book and the reader is referred to books on the subject and particularly to good legal advice.

It is perhaps well to mention that some inventors are practically forced to accept stock as a part or total payment for a patent. Although this stock may be sold later, it is always desirable to investigate into its value before accepting such a proposition.

Noteworthy Points. — Before selling a patent, see that it works and is something worth selling. Do not neglect details. They are the important part of a successful invention. Know your invention thoroughly and be able to tell others what you know.

Do not depend upon the sense of the purchaser to understand anything. He may be very dense and must see everything as clear as glass. Poor drawings, crude models, and the like will not help matters any.

Do not exaggerate. Your invention will not need this questionable support if it is worth selling. Do not be too modest either. Point out all of the merits and show how the defects are overcome.

Take your own time. Do not act as if you were in a great hurry to sell. Your impatience may serve as an excuse for "squeezing." Your purchaser will not pay more than he thinks he may possibly hold you for.

Show the purchaser your viewpoint. Give him something tangible to work on. Give him figures. Point out the demand. Overcome his objections. Be sure that you are right and then persist.

Prove that you have a clear title and a right to sell your patent.

Oral agreements and contracts are not businesslike and may be hard to prove and enforce. Written agreements in duplicate or triplicate are preferable to printed forms.

Do not depend on an advertisement in a paper devoted to all kinds of patents to sell your invention. A purchaser is not likely to read or even see yours in the mixture, much less to consider it favorably.

The purchaser prefers to deal direct with the seller and not through an agent. When an agent is employed be sure that he is

reliable, that the agreements are clear, and establish a time limit for the sale as well as a minimum selling price. Arrange for the payment of the commission at the time the transfer is made.

Selling partial or total rights before applying for the patent should be very carefully carried out. Remember that you practically give away your chief rights when you assign an undivided interest. Protect yourself with protective clauses. These may be:

That co-owners must agree and concur in granting rights or licenses.

That co-owners forfeit the right to independent action relative to the patent rights.

That open books be kept and an equitable division of profits be made.

Remember that territorial grants take considerable time. It is advisable to sell the most important territory first for this reason. Territorial sales have been abused in the past and unless you have something meritorious this method will be useless.

An outright sale is apt to be the most desirable in many cases. The inventor is relieved from the ups and downs of commercial activity and possible failure. Remember, an inventor's chief object should be to invent. Sell or license your patent to reliable parties. Stipulate that a good reputation should be maintained and that care should be taken to maintain the invention in good favor. The potential value of good will is enormous and essential to a successful patent.

Do not expect a million from every idea. The statements of scheme attorneys are more fiction than fact. Hold out for a reasonable sum but do not hold out too long.

Fraudulent sales are to be condemned. This term embraces patent rights sold under false pretenses, when the patent is inoperative or valueless and this is known to the seller, and similar cases. They can be set aside upon proof and may lead to serious consequences in many cases.

The purchaser should require statement that no other license, shop right, or assignment has been made.

Experienced readers do not need to read the foregoing, they *know*.

What the Manufacturer Wants to Know

The prospective manufacturer of a patented invention wants to know if the invention is valid, if the claims are strong or weak, and if the invention is infringing prior patents.

He wants to know if the device will operate practically, whether it will cost more or less than products of a similar nature, and if he can sell it for more or less than competing products.

Moreover he must know whether or not he has sufficient capital to handle the proposition, the development expense, the tools and shop equipment, the raw materials, the advertising and selling expense, the trade and overhead costs, and a sufficient margin for a profit. He wants to know the state of the prior art, the success of the nearest competing devices, the probable territory and seasons for sales, the production costs and the sales costs.

The inventor obviously cannot and is not expected to supply all of this information, nor does a weakness in some of the points necessarily mean failure. With either an inoperative device, an invalid patent or total lack of capital facilities, however, the outlook gets very close to the inevitable state of failure.

CHAPTER XIII

ABOUT INFRINGEMENTS

EVERY patent is open to infringement, infringement of the worst kind in some cases. Indeed, patentees who have valuable noninfringed patents are fortunate. There is a rank tendency at the present time (as in the past) to deliberately disregard patent rights, or to regard them only after protracted suits. Just how much the excessive demands of a few patentees or their assigns have contributed to this state of affairs, or how much the past successes of infringers has encouraged it, is difficult to ascertain. The matter of infringement and the costly remedy which is possible under the present statutes are a burden and injustice to all honest inventors. The infringer can hazard the patentee throughout the entire life of the patent by drawn-out suits or duplication of suits. The chances for a poor inventor or one of moderate means are so slight as to be negligible. A moneyed opponent can fight the matter indefinitely. If the patentee wins in one court, the whole process must be gone over in another circuit. It may even go the rounds of the entire nine judicial circuits. The patentee may fight for his rights in one circuit and win and then be forced to go through the same process in another circuit and lose. The delays and expense involved are enormous and have utterly ruined some patentees. The delays and unnecessary testimony taken are equal to or in excess of those already outlined under "Interferences." The whole subject is quite forcefully stated in the following abridgment from a paper on "Preliminary Injunctions in Patent Cases," by Judge Hill,

which was published some years ago. The conditions are no better at the present time.

This neglect of the Federal courts to give due weight, on motion for preliminary injunction, to the almost conclusive presumption of validity which inheres in American patents from the moment of their issue, has inflicted and is inflicting an injury to our patent system and to the owners of patent property, which it is difficult to overestimate.

. . . If infringements begin early enough there can then be no period of "exclusive possession" or "acquiescence," and the patentee is obliged to wait until the final decree on the merits of the case, and then await the result of an appeal before he can receive any relief. Experience has shown that if the defendant be rich, and disposed to make a stubborn fight, he can delay the final hearing, and the hearing on appeal, from five to ten years, and in some cases almost or quite to the end of the term of the patent. Meanwhile, he is using the invention, and, perhaps, making a fortune out of it; and his success in pirating the patentee's property and avoiding punishment induces other infringers to enter the field, deters capitalists from coming to the aid of the patentee, and destroys the market value of the patent. I have encountered a case, in my own practice, where my client, who had made and patented one of the most valuable inventions of modern times, was obliged to spend the entire term of his patent in weariness and expensive litigation. Just as the patent was expiring the courts decided that it was broadly valid, but it was then too late to be of any substantial benefit to the patentee. He had exhausted his financial resources in the long struggle; had been obliged to witness infringers making millions out of his invention, while capitalists declined to embark in his enterprise by reason of the infringements and of the want of protection; had seen even the Government itself profiting from it to the extent of about ten millions of dollars, through its infringing contractors, while its courts were refusing protection, and had been all the while unable to put his invention into use for his own benefit, because, under the conditions existing, capitalists declined to furnish the means necessary for that purpose. To him the Constitution and the patent statutes passed in pursuance thereof were more than "hollow mockery" — they had actually enticed him to his ruin, by holding out the promise of protection, which the courts, for seventeen years, refused to perform. Under the practice by which that was done, every inventor who makes a valuable invention or dis-

covery that requires a large capital to operate it, is liable to the fate of my unfortunate client; and the greater the money-making capacity of the invention, the greater the temptation to infringe, and the more stubbornly will the infringer contest, while his large profits enable him to protract the litigation almost indefinitely at the sole expense and risk of the patentee, for it is out of his property that all the expenses on both sides are paid. The rigid technical rules governing accountings in patent cases practically prohibit the recovery of profits or damages, and the infringer is left to enjoy his ill-gotten gains.

The time thus lost to the patentee is the most valuable portion of his term, when usually he is poor and needs protection to enable him to establish his business and secure a market, or to enable him to dispose of his patent for an adequate consideration. It is then that infringement is most disastrous to him, for it impairs public confidence in his rights, prevents capital from investing under them, encourages others to infringe, and by unscrupulous and ruinous competition destroys the possibility of deriving profits from his patents. In fact I have known many cases where through the inaction of the courts the patent has been of vastly greater protection to the infringer than to the patentee.

To appreciate the gross injustice and illegality of the present practice, look at a few simple and indisputable facts: The Constitution gives Congress only one authority in the premises, namely, the authority to "secure" to the inventor "the exclusive right" to his invention or discovery "for limited times," leaving it to that body to fix the limit. Congress (Rev. Stat., sec. 4884) has fixed the limit at seventeen years, and has declared the right "exclusive" for that period, and (sec. 4921) it has given the Federal courts power to grant injunctions "to prevent the violation of any right secured by patent." By the plain language both of the statutes and the Constitution the right is to be secured to the inventor, is to be exclusive, and is to run, not for a portion of the period limited, but for the whole of it, and the purpose of the entire provision is "to promote the progress of" the "useful arts." By the practice of the courts, however, the right is not secured to the inventor, is not exclusive, does not run for the period limited, and the effect is not to promote, but to retard the progress of the useful arts. The courts, conceding themselves to be destitute of authority to lengthen the term of the patent, assume the authority to shorten it to any extent they may please by simply refusing to enforce the right until years have elapsed after the beginning of the term. . . .

New Federal Equity Rules of February, 1913

These rules aim to reduce expense of patent litigation and to facilitate the administration of justice. Noteworthy points are:

1. The defendant must answer the complainant's bill within twenty days after service of subpoena, instead of 50 days, months or even a year or more as in the past.

2. Testimony is taken in open court instead of all over the country, experts instead of giving testimony to notaries are now required to submit briefs to the Courts, and evidence need not be printed; thus saving months of time and hundreds of dollars over previous practice.

3. If complainant receives a favorable decision, a perpetual injunction is issued and the rules provide for a "master" (an attorney so named) with sufficient power to facilitate an accounting.

4. In appealing to the Circuit Court the defendant must prepare a simple condensed record of the evidence.

Attempts to Avoid Infringement. — Infringement cannot be avoided by a mere variation of form or size, the use of equivalent structures, substitution of materials, or excessive additions. A studied attempt to avoid the literal meaning of a claim without making improvements or changes of importance is generally conceded as an infringement. The omission of a minor part does not avoid infringement and an important or essential element must be dispensed with. The whole question of infringement hinges upon the claims and unless these are strong the infringer has a distinct advantage.

Conditions for Infringement. — It is not necessary that a patented invention be actually used or made or

sold without the patentee's consent. A mere intention to do so is infringement.

The use of a patent right after the license has been forfeited is infringement.

The owner of a territorial grant becomes an infringer by contracting to deliver the patented goods in territory which is reserved for another. Goods may be disposed of in the same manner as unpatented goods in the ordinary course of trade, however. The owner cannot be restrained from advertising and selling the goods within his territory even if it is a class of goods made outside of the specified territory. In such a case the purchaser receives an unrestricted ownership.

A co-owner becomes an infringer if he uses an infringing device and is liable according to his relative share in the infringed patent.

Those who may sue for infringement are:

The patentee.

A sole assignee.

The owner of an exclusive right, within his territory.

Executors.

Administrators.

A patentee must be joined by his assignee of an undivided interest in suing for infringement. If the infringement occurs in the territory of an undivided interest owner, he must join in the action of his grantor.

A licensee can only sue in the name of the owner of the patent, except in a case in which the owner infringes the rights of the licensee.

Infringement cases are under the jurisdiction of the U. S. Circuit Courts and may be appealed.

Notice. — It is necessary to prove that the infringer was notified of a patent before damages can be had. This notice may be a polite warning together with an

explanation of the patentee's rights and a declaration that the infringer must stop or be sued. Sometimes an advertisement is used as in the case below:

DETECTORS

PERIKON, Silicon and all other mineral and solid rectifier detectors are covered by patents owned by this Company, and all infringements will be prosecuted to the full extent of the Law, including makers, users and sellers of such detectors, or supply and repair parts thereof.

Wireless Specialty Apparatus Company

126 State Street, Boston, Mass.

No complaints should be entered until success is reasonably assured. A delay in bringing suit indicates negligence and poor faith. A suit can sometimes be avoided by having all the patents concerned thoroughly examined by able counsel and an agreement can often be arranged.

A mere declaration that no infringement was intended is no excuse.

In order to secure damages it is required that the patented article has been duly marked patented. There is a general practice at the present time to merely mark an article "Patented," without giving any exact description or dates of the patents relied upon. The idea is to avoid giving the possible infringers an idea of just what they may comfortably avoid. On the other hand, some concerns take elaborate precautions to warn infringers. Full titles and dates are often given and some even offer to send copies of all patents concerned to all who contemplate infringements.

Avoidance of Infringement. — Infringement may be avoided by reason of the fact that the patentee's claims may be closely limited by the prior art. Thus, when a claim includes matter in the prior art as well as the infringing device it is void since its validity would mean that the claim was infringed by the prior art at the same time.

An improvement which avoids the principles of the main patent is no infringement but if it embodies them it is.

It is no infringement to use a less number of parts, even if only one out of six is omitted. This again illustrates the value of a strong claim. When the patent definitely states that the invention consists of six parts, the patentee cannot say that it embraces a less number. On the other hand, if there are really six parts and the claim only states five of them, the courts will generally read the missing part into the claim.

A change in form or shape may avoid infringement when the patent is restricted to a particular form or shape.

Infringement. — Whenever any patent rights are usurped by a person not having title or license to make, use, or sell the invention, infringement is obvious.

Whenever any partial rights are usurped without permission, infringement is also obvious.

A process is infringed regardless of changes in the apparatus used in carrying it out. Infringement of a process constitutes using the equivalent steps of the patented process.

Repairs on a patented machine or the like become an infringement, when the identity of the machine is changed. The replacement of even a single patented part has been held to be an infringing action. These items insure that profits from the patent will not be hindered by competition from rebuilt machines.

The infringement of any of the rights covered by a single claim is sufficient to make the patent infringed.

It is an infringement to make a patented article in the United States which is sold only in a foreign country, even if the article is not patented in the foreign country.

It is an infringement to import foreign made articles which are covered by a United States patent.

Design patents are infringed when the unauthorized article or machine has a similar appearance which will cause a purchaser to buy it under the impression that it is the authorized article or machine. The infringement of a design patent, then, depends on whether or not the unauthorized design deceives the purchaser by its similarity.

A patent for a product is infringed by an identical product regardless of how it is made.

Other cases of infringement have already been considered in previous chapters.

Contributory Infringement. — Patents that are really protective deserve to be. Some of the best brains have been devoted to the task of avoiding infringement. The tricks employed are for the most part intricate and ingenious. As an example: Several parties get their heads together and agree that each shall make or supply only a part of a patented combination, so that the purchaser can put the parts together and have a complete machine. This is an obvious case of infringement, but the idea is that it would not pay the patentee to sue in each individual case. The courts have decided otherwise, however, and a part of a patented combination is held to be an infringement when it can be proved that it is made for the purpose of a combination with other parts to make up the patented combination. This principle is so well established and the methods so old that it would seem that it would not be repeatedly tried.

The Infringer. — If an infringer agrees or has agreed to admit the validity of any claims, he cannot defend himself by claiming that they are invalid. When the infringer is the party who sold the patent to the patentee, he cannot escape by declaring that the patent is invalid, in spite of the fact that others may.

An infringer cannot escape by showing that he invented the device or the like independently and without knowledge of the patentee's patent, unless he can *prove* his priority.

An infringer cannot escape because his device shows some alleged or apparent improvements over the patentee's, unless it is also independent of the main principles claimed by the patentee. It is a common practice for infringers to make this attempt.

Defenses of the Infringer. — In defense the infringer may show that the patent is invalid by reason of previous knowledge or use, that it was in public use two years before the application was filed, that the patentee was not the true inventor but pirated the idea, that the invention was abandoned before the patent was taken out, or other defenses may be introduced. In fact, the patentee is quite likely to see his patent pounded, battered, held up and riddled with holes, and otherwise rendered useless and void. But the mere infringer's statements are not sufficient, they must be *proved*. The infringer may do a number of things by mere words, but unless the assertions can be proved, the patent remains as strong or stronger than ever. Once the validity has been established by the courts, the patentee is generally reassured of the protection which it affords and unless his opponent is very stubborn he is not likely to be troubled further.

A patent is understood as valid until it is proved void by clear evidence of prior knowledge or uses. The pro-

cedure in such cases is strict and the evidence relied upon must be very strong and conclusive. As in a criminal trial, the evidence must prove the assertions beyond a reasonable doubt. In spite of the present tendency in such cases, a patent is not and should not be an absurd document which can be declared invalid for the slightest cause or the most trifling showing. A patent is property, a particularly valuable property, which should not be lightly forfeited or taken from the owner upon the slightest pretenses. Patentees are entitled to the full protection of the law and their rights should not be made the target of legal sharpers backed by large sums of money.

The Center of the Fight. — The whole fight revolves about the claims in an infringement suit and a brief summary of the principles involved are essential to an understanding of this subject.

The average claim can be interpreted in several ways. The court must determine the exact standing of the patent involved before deciding the case. It seeks to establish the precise invention for which protection was asked and given by the Government. If there are several interpretations, the patentee is entitled to the most favorable one. A patentee is generally given the maximum favor in the interpretation. He is credited for the greatest protection which his claims can possibly afford. Even a poorly constructed claim may receive a favorable definition in a few instances. The strong claim always has the distinct advantage, however, and in numerous cases it will effectively check the enthusiasm of infringers and prevent them from fighting a hopeless suit.

The courts are established for the very purpose of providing justice and the patentee is entitled to an equitable decision. A mere legal raillery or technical net-

work, however complicated, will not deter justice, provided, however, that the patentee can "stick it out." Indeed, there have been cases in which justice was deferred until the goose over which the trouble started was gone and there was nothing left to fight about. Again, an alarming number of "bluff cases" are instituted in a successful attempt to sustain extravagant and nonmeritorious claims against financially crippled parties. The instigators know that it will never pay the other party to spend thousands of dollars over a matter which involves only a trifling consideration.

Litigation. Chance of Success

Any first-class patent attorney will tell you that if a patent is to be litigated there are but two chances in five that it will be held infringed, that there is one chance in four that every patent litigated will be held void or invalid in whole or in part and that as far as appealed cases are concerned, there is but one chance in ten that a patent held to infringe in the lower court will be held not to infringe in the higher court.

All patentees are entitled to protection for what their patent shows, rather than a restricted embodiment of the same. The function, principles involved, or the mode of operation is of greater importance than the mere terms used in the claim. The inventor is happily entitled to equivalents. It would not be fair to him if mere changes to avoid his patent were sanctioned. He is entitled to all constructions which perform the same function in substantially the same manner. This may be taken as a definition of the term "equivalents," and is not limited to a definite scope. It may be understood as of great scope and breadth so as to include practically everything which performs the same function. The interpretation depends largely on the indi-

vidual case and the state of the prior art. Thus, a pioneer inventor is entitled to a very broad interpretation while a mere improvement may scarcely come within the scope outlined.

Here, again, the value of a series of claims is obvious. If one or more of the claims is held invalid, there will still be valid claims. If the broad claims are held invalid the narrow claims may be relied upon, and so on. A single valid claim may save the whole patent and cause it to be upheld and infringed.

While the patentee is generally favored with liberality, he cannot, in the majority of cases, receive protection for more than he originally claims. The courts hold him to his claims and the infringer escapes if they are avoided by substituting a less number of parts without substituting any equivalents for the parts so omitted. The addition to the number of parts to secure operativeness or alleged improvements, on the other hand, does not avoid infringement, since the patentee is entitled to an implied meaning in his claims which will make the combination operative. Briefly, allowing for the other conditions, additions do not avoid infringement, but subtractions do. The courts will never read a component out of the claim but they will read it into a claim. The modifiers to each component are also taken into consideration as the case may require.

The Remedies. — The remedies for infringement are threefold. The patentee is entitled to an injunction, damages, or profits, or two or all of these as the case may be.

Injunction. — An injunction serves to restrain further usurpation of the patent rights either temporarily or permanently as the case may be. The object is to carry out the provisions of the patent statutes either on the reasonable assumption or actual proof of the validity

and infringement of the rights, in preventing competition. An injunction is the main remedy for infringement.

Damages. — Damages are the pecuniary injury resulting from loss of sales or the like and can only be recovered upon actual proof. They are generally difficult to prove and can seldom be obtained. They may be recovered, however, and the court can compel the infringer to render an account.

Damages and profits cannot be collected for a period of more than six years prior to the commencement of suit. In the absence of an established license fee there is almost no chance to recover damages for infringement and when an injunction cannot be obtained the patentee is substantially without remedy.

Profits. — Similar provisions apply to profits. They can generally be recovered upon proof but the patentee must prove the amount. Both profits and damages are thus difficult to obtain and the injunction must be relied upon for the main remedy. When allowed, damages and profits are restricted by numerous factors such as deductions for cost of selling, influence of improvement patents, etc.

Preliminary Injunction. — When the validity of a patent is established as by a previous and successful infringement suit or the general acquiescence of the public as to its validity, a form of injunction termed "preliminary injunction" may be obtained. This is a very valuable weapon in the hands of the honest patentee and the only regret is that it is difficult to obtain in the majority of infringement cases. It restrains the infringer from continuing the infringement from the beginning and during the progress of the suit and if provisions were made for its general use on less difficult grounds the author believes that infringers would be

generally discouraged to the lasting benefit of honest patentees. Our patent statutes are very favorable in granting patents but are sadly lacking in enforcing them. This is perhaps the greatest defect in the present system and until the matter is improved no patent can be insured of its validity beyond doubt without unwarranted expense and delay. The patent is useless during the suit in most cases and unless a preliminary injunction has been issued the effective term of the patent is generally curtailed. It is hoped that this state of affairs will be remedied in the near future.

Infringers, however, take the risks that an average criminal does and a final reckoning is a possibility which may mean their ruin.

The foregoing is based on numerous decisions and while far from complete, it covers the general items involved in this complicated part of patent procedure. It is perhaps well to mention that only a very small per cent of the patents issued are ever involved in infringement suits, but that a really valuable and important patent is very lucky to escape infringement of one sort or another. As in the case of civil suits of any kind, it is sometimes advisable to call a truce and make peace with the other party even if he is wrong. Peace is generally less expensive in the end than war.

The matter of infringement and the difficult remedies from it are one of the greatest defects in our patent system. The entire efforts of inventors and those interested in inventions should be directed toward remedies for this intolerable state of affairs. There has been a commendable movement to this effect in the past but no results have appeared as yet. That it is an important subject is an established fact for under the present statutes, such procedure and liability to such procedure is a dead weight upon the shoulders of honest inventors and tends to defeat the very purpose of the Constitution, namely, to encourage invention.

CHAPTER XIV

POINTS ABOUT FOREIGN PATENTS

THE opportunities offered to inventors by foreign patents are, for the most part, not as great as in the United States, but they should not be underestimated. Taken collectively, a group of valid foreign patents will often exceed the value of the United States patent. There have even been cases in which the inventor was forced to look to foreign countries to develop his invention when American manufacturers would not hear him. To the modern manufacturer a group of foreign patents is almost essential to insure his foreign trade. Not a few manufacturers have found their safety in foreign patents in times of domestic inactivity. There are manufacturers in foreign countries, on the other hand, who are always willing to consider new and meritorious inventions.

Foreign patents, however, are full of pitfalls for the unwary, and should be taken out only after mature thought and advice. No valuable invention should be neglected in this matter and no insignificant minor invention of limited utility should ordinarily be encouraged and protected by foreign patents. Perhaps the first item is to determine the probable demand in a given foreign country. It would be obviously unwise to patent a hydraulic motor in a country without water power, a gold dredge in a country without gold, or any device in a country in which it could not be used. It would also be unwise to patent a device intended for a prosperous people in a country which is notorious for its poverty. The illustrations might be continued al-

most indefinitely. The first point, then, is to ascertain if the foreign country needs the invention.

The expense of taking out foreign patents will probably bother the average inventor. Unfortunately he is often misled by poor advice and finds that his investment can never even be repaid in part. The practice of filing foreign patents regardless of the essential considerations of patentability, validity, and demand, on the part of some attorneys is not to be commended. Foreign patents should be entrusted only to attorneys of known integrity and standing. The inventor will then be fully advised as to the usefulness of foreign patents in his particular case. He will also be assured that his several applications will be filed to secure the maximum term in all countries, since some countries cause their patent grants to lapse at the time any other country causes it to expire. Foreign patents, with few exceptions, must be filed within twelve months from the date of filing the United States application.

Foreign Patent Costs; Taxes; Sales Without Patents

Foreign patent laws differ materially from the United States Statutes for the most part and the inventor should have some idea of the general features of the leading countries in this respect. Many countries grant patents to the first applicant whether he is the inventor or not. Unscrupulous persons, styled "introducers," can thus pirate and prosper on the inventions of nonaggressive foreign inventors. Many of the foreign countries have no searching system and grant patents without any preliminary examination to determine the novelty and patentability. As a result an unscrupulous attorney can obtain fees by obtaining a patent in such countries for almost anything. This is done sometimes in spite of the fact that the United States and Canada have

already refused to grant a patent on the same subject matter because of references found in the search. Such a patent is absolutely worthless, however, since most of these countries provide that any patents which they grant become void if it is found that the subject matter was old at the time the patent was granted. The patent can be subsequently invalidated upon a showing in this respect, which is sure to result if the patent rights should be of value. Another general feature of foreign patents is the matter of taxes. Nearly every such country requires some kind of a tax on the patent. Some require a yearly tax while others require a tax after a few years. Some allow a short period of grace for the payment of taxes and others provide for the immediate lapse of the patent rights upon nonpayment of the required taxes. While the initial expense in taking a patent may thus be small, the total expense for the full term may be large. This is particularly true in countries which provide for a constantly increasing scale of taxes. In Russia, for instance, the first expense is moderate, but the total cost for the fifteen-year term amounts to \$1097, independent of attorney fees. Another feature which should be noticed is the fact that many countries require the invention to be worked within a certain number of years and to be forfeited if it is not worked. Others provide for compulsory licenses upon a showing. Some countries provide that the government shall have free use of all patented inventions. The provisions vary widely according to the country concerned.

Many manufacturers believe that it is better policy to spend the money required for foreign patents and factories on development in the United States. This is particularly true when the product has a limited sale; a manufacturer can then maintain a profitable export

trade on the U. S. Patent alone for the sales in any single country are not large enough to encourage competition.

In all, about seventy-five of the main countries and provinces have patent laws. The chief countries will be considered more in detail. Owing to the fact that some countries have made amendments to their statutes these lists may not be entirely accurate and should only be understood as giving the general features. Holland, for instance, has but recently established a patent system.

Those granting patents without preliminary examinations are, France, the German Gebrauchsmuster (three-year patent), Italy, Belgium, Spain, Portugal, Switzerland, Mexico, Brazil, and Tunis. As before stated, patents are easily obtained in these countries. Any proof subsequently as to nonpatentability, that the invention was claimed too broadly, or that the invention was not clearly claimed, or that other requirements were not adhered to render such a patent invalid in most of these countries. When a United States patent is refused, it is useless to patent the same subject matter in these countries in practically every case. Germany is an exception to the above list since the regular patent (fifteen-year term) is rigidly examined. Great Britain now has a limited search system in which British patents only are referred to in the examination. This examination, however, does not go more than fifty years back.

Preliminary Search; Taxes; Compulsory License

Countries having a preliminary search system are Canada, Germany, Great Britain, Austria, Russia, Denmark, Sweden, Norway, Japan, Argentine Republic, and Liberia. This is a mere formality in some countries. Canada and Germany have a system equal to that in the United States in many respects. Germany

refuses to grant patents on any invention open to doubt and as a result those which are allowed have a strong presumption of validity. Most foreign countries do not consider an invention as new if it is already known or used by others at the time the application is made. Even a publication of the invention renders it unpatentable in some countries. The announcement of an invention in the U. S. Patent Office Gazette is sufficient to render patents subsequently applied for in foreign countries invalid for the most part. As an instance we might mention the Wright Brothers' aeroplane patent rights which were recently declared invalid in Germany on account of a technical publication reference.

Foreign patents should be filed before the United States patent is published and preferably before it is even allowed in full. The United States laws, however, provide for a term of six months after the application has been allowed before requiring the final fee and the publication of the patent. This allows our inventors to file foreign applications which will be valid and is a very useful provision.

The first applicant, whether he is the inventor or not, may apply for the patent in Germany, France, Belgium, Portugal, and some other countries. Some of these provide that the patent thus obtained is invalid unless the applicant had the inventor's consent. In Great Britain, Austria, and other countries, the law provides for the transfer of the patent to the inventor regardless of a previous grant to another party who was not the inventor.

The first year's taxes are generally included in the original application fees in most countries and the working is easily complied with in some countries. The commercial manufacture of the invention is however required by some countries. The compulsory licenses which

are required by some countries are intended to prevent the nonuse of needed inventions. Great Britain, Germany, Austria, Hungary, and others have this provision. American inventors receive particular favor in some instances by reason of treaties which the United States has made. Thus, an American inventor cannot be compelled to work his patent in Germany on account of the treaty of Feb. 23, 1909.*

Many foreign countries require the applicant to place himself under the jurisdiction of their laws by appointing a representative in the country. This is generally done automatically by international attorney connections. The address requirement of some countries is also complied with in this manner.

Certain classes of invention which are granted patents in the United States cannot be patented in some foreign countries. Among these are foodstuffs, or medicines produced by chemical processes.

Many countries provide for patents of addition. These patents are for improvements on the original patent as filed and generally terminate at the time the main patent expires. They can generally be obtained for a nominal extra fee. Some countries provide for patents of varying terms with a sliding scale of fees. The fees in some countries of minor importance will be found to be greater than the fees for protection in the main countries. Patents in some countries are of little more utility than the mere name.

The most desirable foreign patents for the average invention appear to be for Canada, Great Britain, Germany, and France. The others are of course valuable

* See "The German Patent System," H. Wertheim, *Scientific American Supplement* 73: 404 June 29, 1912 (reprinted also in other journals) for a concise account of the rights of American inventors in Germany.

in many cases, but these should be considered first. If the inventor feels that he cannot afford to assume the expense for procuring these it will generally be advisable to procure a partner or assistance, taking precautions to protect the agreements with insuring clauses. If the invention is really meritorious, financial assistance can probably be obtained by an agreement to divide one-half of the profits or the like. Ordinarily, undivided interests, co-ownership as joint inventors and similar pacts should not be resorted to. Some countries permit a financial backer to be named as a joint inventor whether he is or not. The Canadian patent should generally be obtained to supplement the United States patent. The Canadian laws and procedure are nearly identical with the laws and procedure in this country with a few minor exceptions. The complete rules and laws can be had gratis by applying to the Commissioner of Patents, Ottawa, Canada. The Canadian laws provide that a patented invention must not be imported into Canada after one year.

In many foreign countries the term of the patent begins with the date of application instead of the date of the grant as in the United States.

The German full-term patent is generally conceded to be the most difficult to obtain. It is generally of greater value for this reason. There have been cases in which the German patent was refused after the United States patent had been allowed. Germany and other countries have a publication system, by which the public is advised of the pending allowance and given an opportunity to make a protest. This method gives a further assurance of validity to the patentee.

*The International Convention for the Protection of Industrial Property. (Office at Berne, Switzerland.
Official language — French.*)*

This union is one of vital importance to inventors and manufacturers. It embraces the United States, Great Britain with New Zealand and Commonwealth of Australia, Germany, Austria, Hungary, France with Tunis, Algeria, and French Colonies, Italy, Swiss Confederation, Denmark, Sweden, Norway, Belgium, Netherlands with Dutch East and West Indies, Spain, Portugal, Turkey, Servia, Mexico, Cuba, Brazil, Chili, Ecuador, and a few others.

The convention has done much to bring about a standardization of patent procedure in spite of the varying laws in each case. Its work has been of great importance and it is hoped will eventually lead to uniform patent laws in the leading countries. The requirements of many laws have already been modified by provisions in the convention agreements. The main points are:

1. An applicant is given a period of twelve months during which he enjoys the right of priority for the purpose of making applications in any other countries to the agreement other than that filed.

2. A subsequent deposit made during the twelve-month period in any country to the agreement cannot be declared invalid by acts performed during the interval, as publication, or working, or sale.

3. Patents applied for in the different contracting states are independent of patents for the same subject matter obtained in any other country. *Note:* Countries not in the Union generally provide that the patent in that particular state lapses at the same time another

* French is used in the preparation of patent documents in several countries.

patent for the same subject matter lapses even if this takes place before the full term is completed.

4. When legislation prevents seizure on importation, prohibition of importation may be substituted. *Note:* The leading countries including the United States generally allow importation.

5. A patentee in each country of the Union does not suffer forfeiture because of nonworking until after the minimum of three years after the application in the country concerned and in cases where he does not justify the reasons for the inaction.

6. Applications under the treaty must be modified to comply with the individual formalities of each country.

Note: The procedure in many countries is similar and duplicate documents can be used in some cases. Some countries allow of a choice of languages.

Infringement of Foreign Patents. — In general the patentee enjoys almost as great protection from infringement in foreign countries as in the United States. In some countries he has even greater rights in this matter. A few general notes concerning infringement follow:

France provides aggressive measures for the provisional confiscation of infringing articles.

Germany, Mexico, Brazil, and others make the violation of patent rights punishable by fines.

Canada and England provide for civil procedure as in the United States. (A penal servitude of three years may be imposed for infringement in Japan.)

The proper marking of the patented article is regarded as essential in order to notify the public in most countries. In Germany this is — Patent, D. R. P., or Deutsches Reichspatent. In France this is — brevet — or — brevet — and S. G. D. G. (sans garantie du gouvernement). In France the patentee is liable to a fine for

using the mark after the expiration of the patent. Other countries generally allow such use without liability.

Foreign countries generally provide a fine for the fraudulent use of the word "patented." In Canada this is \$200, in England \$25, and in Germany \$250.

France requires that the taxes be paid before an assignment of the patent rights can be recorded.

In England the owner of a valid patent is given noteworthy protection. An infringer cannot avoid infringement by dropping even an unimportant element of a claim in his combination.

The patentee is not required to mark the article patented, in England.

Co-owners may sue separately in England.

Canada provides a penalty for nonmarking of patented articles but this does not prevent the collection of damages.

In general, the leading foreign countries provide equal or greater protection against infringement than the United States. The procedure in Germany in infringement suits is particularly direct and effective.

The foregoing is only of a general nature and since the subject is a large one it is not complete. It is thought that these points will be sufficient for ordinary purposes and the reader is referred to legal advice, encyclopedias, and "Foreign and Colonial Patent Laws," by W. C. Fairweather.* Manufacturers can also get information from the Consular Service with respect to particular countries.

Foreign patent rights are often sold through brokers. The principles involved do not vary materially from the

* D. Van Nostrand Co., \$3.00; Hornung's "The Patentee" was referred to in preparing this chapter. Published by W. Hornung, Ph.D., Detroit, Michigan.

procedure in selling domestic rights and too much care cannot be taken in choosing a reliable representative. Domestic manufacturers with growing foreign trade can be interested in the foreign rights to the inventions in their line. The subject is worth the consideration of every patentee.

Concerning the International Patent. — Of course this does not exist at the present time, but there is a strong tendency towards such a universal protection for inventors. We have this protection at the present time for authors and there are only details which stand in the way of a similar protection for inventors. The International Convention has already done much to this end, but of course the effort has not reached the point of a universal statute and protection, as yet. By an International Patent is meant a patent which will be issued to an inventor in any country which will be valid in every country and which will enjoy identical privileges in every country.

This would be ideal for the collective inventor but at the present time there are several obstacles in the way. The patent would have to be issued in a main office for the whole world or in several branch offices in each country and at the same time be thoroughly examined and rendered reasonably valid in every country. The difficulties are thus intricate. Interferences and infringements would have to be successfully met with so that the International Patent would be more than a mere legal snarl. The system would have to be adapted to suit the individual requirements of each country for a share in the fees, jurisdiction, and the like, and some universal style would have to be adhered to in making applications and in other procedure. The subject thus becomes complex. It is hoped that such a system will be successfully evolved in the near future or at least

that the laws of the leading foreign countries will be standardized and made more uniform. It seems that the latter step will have to be taken before the International Patent can be satisfactorily evolved.

At the present time, however, we have not even a satisfactory domestic set of laws for patent rights and until a perfected system is evolved not an erg of energy should be expended in other directions.

The war which began in August of 1914 brought about a unique congestion in domestic and foreign patent relations. This was promptly relieved, however, by special provisions for the payment of fees, taxes, for signatures, etc. Provisions for patent protection naturally follow political fluctuations but the special conditions relating to patents are properly considered to have only temporary significance.

CHAPTER XV

THOUGHTS ON INVENTION AND INVENTORS

Th'invention all admired, and each how he to be the inventor
missed; so easy it seemed,
Once found, which, yet unfound, most would have thought
impossible.

Milton.

How true, even to-day, and this from Dickens:

Is it reasonable to make a man feel as if, in inventing an ingenious improvement meant to do good, he has done something wrong? How else can a man feel after he is met with difficulties at every turn? . . . And look at the expense, how hard on me, and how hard on the country, if there is any merit in me (and my invention is took up now, I am thankful to say, and doing well), to put me to all that expense.

Lord Bacon tells us:

The introduction of great inventions appears one of the most distinguished of human actions, and the ancients so considered it; for they assigned divine honors to the authors of inventions, but only heroic honors to those who displayed civil merit (such as the founders of cities and empires, legislators, the deliverers of their country from lasting misfortune, the quellers of tyrants, and the like). And if anyone rightly compare them he will find the judgment of antiquity to be correct, for the benefits derived from inventions may extend to mankind in general, but civil benefits to particular lands alone; the latter, moreover, last but for a time, the former forever.

President McKinley said:

Our future progress and prosperity depend upon our ability to equal, if not surpass, other nations in the enlargement and advance of science, industry, and commerce. To invention we must turn as one of the most powerful aids in the accomplishment of such a result.

Professor Robinson (Robinson on Patents) says:

Thus, although at the outset our patent laws were in some important aspects more favorable to the inventor than those of England, the development of the theory that the inventor is necessarily a public benefactor, and that the means adopted for his protection and encouragement are in themselves promotive of the public good, has here as well as there produced its legitimate results in the constant increase of his exclusive privilege and the corresponding limitation of the public rights.

Walker, on Patents, has this to say:

The right of property which an inventor has in his invention is excelled in point of dignity by no other property right whatever. It is equaled in point of dignity only by the rights which authors have in their copyrighted books. The inventor is not the pampered favorite or beneficiary of the Government or of the nation. The benefits which he confers are greater than those which he receives. He does not cringe at the feet of power nor secure from authority an unbought privilege. He walks everywhere erect and scatters abroad the knowledge which he created. He confers upon mankind a new means of lessening toil or of increasing comfort, and what he gives cannot be destroyed by use nor lost by misfortune. It is henceforth an indestructible heritage of posterity. On the other hand, he receives from the Government nothing which costs the Government or the people a dollar or a sacrifice. He receives nothing but a contract which provides that for a limited time he may exclusively enjoy his own. Side by side stand the inventor and the author. Their labor is the most dignified and the most honorable of all labor, and the resulting property is most perfectly theirs.

Joseph R. Edson in his efforts to have extensions for patents provided for, says:

Litigation, protracted through years, fruitless quest for capital, fruitless expenditures of his own resources, heartbreaking disappointments, and grinding poverty too often fill up the short term of a patent.

In my humble judgment no amendment to the patent laws could do as much for the honor and glory of our country as the passage of some general law for the extension of patents in proper cases.

Senator O. H. Platt in his famous speech says:

Mr. President, the patent fees ought to be reduced. A tax upon inventors which produces more than enough to pay the current expenses of the office is simply shameful. It is a tax upon knowledge, a tax on invention, a tax which in itself is as iniquitous and abominable as a tax upon authors or scientists would be.

. . . When the fathers wrote that clause into the Constitution of the United States they builded better than they knew. They knew, indeed, that the prosperity of every nation must depend largely upon the progress of the useful arts. They knew that if this country was to attain the glory and the power which they hoped for it, it must be along the road of invention; but they could not—the wildest dreamer, the statesman with the most vivid imagination—could never have dreamed, could never have imagined, the blessings, the beneficial results which should flow and have flowed from the exercise of the power thus granted to Congress.

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It is the manufacturer who has furnished the capital, the enterprise to reduce these inventions to practical application; it is the cunning workmen in the factories that have applied these inventions. The invention of the telegraph was a vast conception, but it has required the manufacturer and the artisan to make that profitable to the country.

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The truth is, and there is no avoiding it, that you cannot disconnect in this country invention, manufactures, and agriculture. The triumph and the success of the one is the triumph and the success of all. They are interdependent coequal factors, as it were, in producing our prosperity and our happiness; and so with regard to the other industries of the country patents are directly connected with them all and absolutely necessary to their successful pursuit. I will not stop to enlarge. . . . That nation which gets most of the world's trade is to be the first power of the globe. Both patriotism and the interests of humanity impel us to say that the United States must have it. How is it to obtain it? It is to be obtained only by encouraging the inventive genius of our citizens, by protecting the patent system of the country and all that is involved and comprehended in that system; and as we stimulate the inventive faculty and protect the patent system, we shall steadily reduce the cost of production in this country until we are able to compete with the world, no matter what may be its system of labor.

I know the argument is often used that inventions are opposed to the labor interests of the country. It is not true. There is a redistribution of labor whenever a new labor-saving machine is invented, but there is no destruction of labor. There is no degradation of labor in invention. The man released from a particular kind of labor by the introduction of a labor-saving machine does not go down in the grade and scale of labor, but he ascends. He engages in some higher employment, in some more productive avocation, for patents elevate the laborer. New inventions open new fields of labor.

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A distinguished member of the Army told me within a short time that the only reliance of this country in case of war was upon the inventive genius of its people, that it had no Navy, that it had no sufficient Army, that it could only defend itself by a special exercise of the inventive faculty of its citizens in calling into immediate use and power new implements of warfare.

Is not this vast system of property worth protecting?

.

I have heard it argued that we had approached the perfection of the patent system, that there were no new worlds to conquer, that nature had no more secrets to bestow upon mankind for their benefit. So far from this being the case, we stand but in the very vestibule of the great storehouse of nature's secrets. We have but gathered a few pebbles along the shore on which beats a limitless sea. There is no limit to the evolution of human invention until it reaches the realm of the infinite. It requires no prophet's vision to see the coming glory and the coming triumph of the inventive skill of man.

The Commissioners of the Patent Office have voiced the needs and appreciation of inventors on many occasions.

The recent commissioner,* Edward Bruce Moore, says:

The age of invention has just begun to dawn. The accomplishments of the last half century, while marvelous almost beyond conception, will not begin to compare with what will be done in the next half century.

* Thomas Ewing is now the commissioner.

The former commissioners have left the following thoughts:

What is now needed is the perfection of the system, better and more complete means for carrying it on, and more effectual means for protecting the inventor. — *Commissioner Fisher*.

But for the patent system only an infinitesimal part of the triumph of inventive genius would have been accomplished, and if we would cut the ground from beneath the material prosperity of the age, there is no way in which this could be more effectively done than by the repeal of our patent laws. — *Commissioner Butterworth*.

It is a fact familiar to all who have given the subject matter any considerable attention that a very large proportion of the more valuable inventions are assigned in their infancy for trifling considerations, because of the indigent circumstances of the patentee. Assignees have in general made all the money that has been made from the original term of patents. — *Commissioner Leggett*.

The class of men who have given to their native land and to the world these grand inventions, whose beneficent influences tell with measureless power upon every pulsation of our domestic, social, and commercial life, are indeed public benefactors, and may well be pardoned for believing that their wants should not be treated with entire indifference by that body, which represents alike the intellect and heart, as it does the material interests of the great country of which they are citizens — the Congress of the United States. — *Commissioner Holt*.

It must, however, be borne in mind that many good inventions are not developed for the want of means; many are laid aside because, although good and useful, they are in advance of the art to which they belong. The protection afforded by the patent and the hope of reward have proved the incentives to invention.

They do not deem it too much that the Patent Office, which is the only institution which they can properly call their own, and which they have built up with their money and established by their genius, shall be supplied upon a liberal scale with every appliance for the performance in the best manner of all legitimate duties. — *Samuel S. Fisher*.

But the territories of American invention know no Pacific Sea. Their farther bounds expand as their hither borders are occupied. Illimitable in extent and inexhaustible in resources, they will yield up unimagined treasures of invention in all the coming centuries,

just as they have done in the hundred years of marvels whose recorded story, drawing toward its close, is at once the tribute and the glory of the American patent system. — *C. E. Mitchell.*

A vastly large number of inventions are of a greater value than the public dreams, and those which seem to fall dead contain within them the seeds of suggestion which later lives and grows to rich fruition. — *W. E. Simonds.*

It is to the stimulus to invention given by our patent system that the greatest increase in our exports is largely due, and it is on American invention, as fostered and stimulated by the patent system, that we may confidently depend for ability to maintain the high rates of wages to American workmen and yet compete successfully in the markets of the world with nations where the workman receives but meager return for his labor. — *A. P. Greeley.*

Let us not forget that it is the American inventors who by their inventions and discoveries "have made the last fifty years of the nineteenth century the most remarkable of recorded time," and at the same time have laid the civilized world under tribute to American manufacturers.

In return for all this our inventors only ask for a fair field and fair treatment. An enlightened public sentiment demands that their requests should be considered with favor by the Congress of the United States. — *C. H. Duell.*

The readers are doubtless familiar with Thomas A. Edison's formula for *genius* — two per cent *inspiration* and ninety-eight per cent *perspiration*. The following are further thoughts from this master mind.

We are only at the beginning of knowledge. We are just beginning to emerge from the dog stage. All around us there are wonderful things going on of which we have not the slightest cognizance.

The next era will mark the most wonderful advance in science and invention that the world has ever known or hoped for. So vast will that advance be that we can now have scarcely any conception of its scope; but already a great many of the inventions of the future are assured.

I believe that any person, even of the most limited capacity, could become an inventor by sheer hard work. You can do almost

anything if you keep at it long enough. Of course, the man with a natural aptitude would get there first, but the plodder would eventually gain his point. The constant brooding on the one thing is sure to develop new ideas concerning it, and these in turn suggest others, and soon the complete idea stands out before you. Above all things a man must not give up, once he has outlined his plan of action. A ball rolling down hill is sure to reach the bottom ultimately, no matter how many obstacles stand in the way. It is this principle which finally levels mountains. So, once fairly on your way, don't stop because of some seemingly impassable object in front of you. What you want may be just beyond your nose, though you do not see it.

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Man is a thinking animal. All he can do is to turn his thoughts the best way. — *Sir W. Temple.*

These thought motives might be continued almost indefinitely, and in justice to those omitted it is stated that there are numerous equally valuable and pithy thoughts which have been voiced by others.

CHAPTER XVI

THE PRESENT AND FUTURE OF INVENTIONS AND PATENTS. LEGISLATION. A SCHOOL OF INVENTION

INVENTIONS and their protection by the patent system have now been considered in some detail. Let us consider the present status of the subject and its future.

Legislation. — The many defects and needed reforms in our patent system have already been pointed out at some length. Various bills have been formulated in recent years, some with the honest intent to improve and others with less commendable features. For the most part these bills, including provisions for extensions of patents in meritorious cases, the building of a new Patent Office, and the other needed items have never been passed. Our legislative system is such that these bills can readily be lost in the committee or through differences in the status desired by the house and the Senate. Inventors as a whole have taken but mild interest in the hearings for the several bills at the several times and as a result it appears that their interests have suffered to some extent. Every inventor and all persons interested in inventions should do everything possible to support worthy bills in the right direction and to prevent the passage of bad bills.*

At the present writing the greatest interest is centered

* Copies of such bills and also reports can be obtained free from your Congressman. Thus the hearings before the committee on patents on H. R. 23417, 62d Congress include twenty-seven pamphlets treating the matter of revision in detail. The hearings are full of interest to the inventor.

in a bill known as the Oldfield Bill after its author.* The recent Henry-Dick case and its resulting publicity has given an impetus to the efforts to have it approved. It contains a number of radical provisions, some good and others decidedly against the interests of inventors. The bill is directed at the rights of the inventor and seeks to limit his opportunity to fully enjoy the rights granted him under the present statutes and their interpretation. The features which have been most strenuously objected to at the hearings are the matter of compulsory licenses (similar to those imposed in foreign countries), the limitation of improvement patents so that a monopoly cannot be aided by their use (providing for the expiration of the main patent and the improvement patent simultaneously regardless of the date at which the latter is secured, as in foreign countries), and the matter of restrictions to licenses (intended to correct the supposed evils of license restrictions, maintained prices, etc., made possible under the present statutes). The latter item has consumed a great deal of time at the hearings to the practical exclusion of the other vital items. Indeed the bantering in such matters is discouraging to the composite inventor. Why cannot some congressman or senator draw up a good and needed bill which will stand the test and then engineer it through to the end? Why try to follow in the steps of foreign countries by taking a step backward instead of forward? Why not give our patent system a greater instead of a lesser value? All these and other questions are of vital concern to all inventors and those interested in inventions. And further, this means practically every citizen, for one and all owe a great deal to inventors and a liberal patent system.

* Mr. Oldfield's bill appears (1915) to have been abandoned but the issues involved will doubtless come before Congress again.

The Kahn bill providing for what amounts to an incontestable patent for three years after the close of the Panama-Pacific Exposition to every owner of foreign rights regardless of novelty or the usual qualifications who exhibits at the exposition, has been enacted into a law. There is a strong protest by thinking inventors against this unfair law and it is likely that it will be amended in time to prevent it from interfering with the present statutes.

As pointed out in another chapter, the matter of international and uniform legislation will have to take its own course of evolution. Every effort should be directed to the matter of adequate and necessary legislation. Attention is directed to the resolutions which were sent to the President by the Inventors' Guild which will be found in the appendix, as a further exposition of needed legislation.

Systematic Invention. — Each year sees a greater effort toward systematic invention. The individual inventor still continues, to be sure, and will very likely always produce the revolutionary inventions to a large extent, but the coming of the professional inventor and his staff, together with the inventors' staffs of corporations is gradually limiting his field of activity. For certain kinds of inventions, the individual inventor is supreme and cannot be equaled, but for the improvement type of invention, the gradual commercial improvement form of invention, inventors' staffs and trained groups of inventors with their facilities far outclass him.* However, as he realizes this he is also quick to adopt the new methods, and already we have several independent inventors with their own staffs. The inde-

* Thus the new nitrogen electric lamp was invented by such a group, a feat which is conceded to be beyond the ability of the leading private inventors.

pendent inventor will exist as long as the arts continue; moreover, the majority of the big inventions are sure to be originated in his brain. It is impossible to reduce all invention to a machine-like factory result process and invention will always take its own course.

On the other hand, there is a growing tendency on the part of the individual inventor to perfect himself, so to speak. He is constantly learning by actual experience and is becoming better trained and wiser each day. In short, he is striking out into profitable fields and is operating with a definite purpose and system. This movement is sure to result in increased triumphs for inventors as a whole and no one can foresee to what it will eventually lead.

Inventors are recognized more each year and they have come to be a profession in themselves. In fact there is probably no profession which offers such opportunities to prospective and willing members as invention. In view of this fact, it seems impossible that it should not be recognized as such and taught in the schools and universities.* That such courses will be offered in the near future seems evident.

It seems that such a course will be best worked out on the trade school plan — by actual inventing. A willing student could be trained into the essential features of invention in this manner. His observation could be cultivated by well-known methods, his logic molded by other subjects, as geometry and other logical mathematics, debate, etc., his mechanical ability fostered by shop and drafting practice, and finally his inventive ability drawn out by actual invention, first of simple contrivances, then of old complicated problems which have already been solved, and finally on original prob-

* The present technical courses are of course an excellent training.

lems, all under the guidance of skilled aggressive instructors. Unlike other forms of engineering or professions, invention is not limited to any certain field and the student thus educated would be free to strike out into congenial and chosen fields. Who can fail to see the possibilities in this subject?

Such a course is sure to do for invention what other courses have done for other arts and professions, and would certainly eliminate a great deal of waste and accomplish a great deal of good. The students attracted to such a course would naturally have considerable undeveloped talent or bent for invention and the course necessary is thus narrowed down to the development of this natural trait. That it can be done is obvious and that such a course will be a great success seems assured.

Invention should be considered a great profession, a comprehensive power, so to speak. Other professions do much for humanity but are limited to carrying out the things already invented, to a form of routine practice over what the world already possesses. Invention, on the other hand, strikes out into new fields, conquers new problems, and creates new values, professions, and wealth. Others merely rearrange and consume the world's supply, while the inventor creates and adds to that very supply. This being true, can we have too many inventors? Can we do too much to encourage inventors? Can we do too much to aid inventors? Can we do too much to support inventions? Can we do too much to develop inventions?

MEMORANDA

Bearing in mind that the reader may think out many valuable ideas at any time, these sheets have been added for convenience. Experienced inventors of course aim to be systematic and have their own methods of taking notes. Unless the reader owns this book he should not use or mark these pages.

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APPENDIX

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APPENDIX

DIGESTS AND ABRIDGMENTS FROM IMPORTANT DECISIONS

Author's Note: While these abridgments are far from complete, it is thought that they will be of value in supplementing the matter in the text.

IN RE JOHN WEDDERBURN AND JOHN WEDDERBURN & Co.*

Decided September 30, 1897

1. JOHN WEDDERBURN AND JOHN WEDDERBURN & Co.
HELD GUILTY OF GROSS MISCONDUCT, AND ALSO
THAT HE AND THEY SHOULD BE DISBARRED.

The report of the Assistant Commissioner in reference to the order upon John Wedderburn and John Wedderburn & Co. to show cause why he or they should not be refused recognition as patent agent or patent agents, and the facts, evidence, and arguments in the case examined, and *Held* that the said Wedderburn and Wedderburn & Co. have been guilty of gross misconduct as agents or solicitors before the Patent Office, and that he and they should be disbarred.

2. DISBARMENT PROCEEDINGS — JURISDICTION OF THE COMMISSIONER — RELATION OF SOLICITORS TO THE COMMISSIONER, DISTINCT FROM THAT OF A LAWYER TO A JUDGE.

The relation which a patent solicitor sustains to the Commissioner of Patents is not the same as that which a

* Not a few of these methods are still employed by "scheme attorneys." John Wedderburn has recently been reinstated to practice.

member of a bar sustains to a court. The Commissioner is not a member of the judiciary, practitioners are not members of a court of which the Commissioner is judge, nor does the Commissioner have the authority or jurisdiction of a judge in a disbarment proceeding.

3. SAME — SAME — CORPORATION.

The respondent corporation having, by advertisements, by their pamphlets and letter heads, and by the whole tenor of their correspondence with clients, put themselves before the public as patent attorneys, cannot be heard to deny that they are in fact subject to the jurisdiction of the Commissioner simply because they are in fact a corporation and therefore not legally competent to practice law.

4. SAME — RULES OF EVIDENCE — SUFFICIENCY OF PROOF.

In proceedings under a rule to show cause why an attorney should not be disbarred, it is not necessary that the rules of evidence applicable in criminal proceedings be strictly observed, such proceeding being in its nature civil. (*Ex parte Wall*, 107 U. S. 265.) Nor is it necessary in proceedings of this nature that offenses be proved beyond a reasonable doubt. It is sufficient if the investigation be conducted with fairness and the respondents be afforded ample opportunity to explain the transactions on which the charges were based and to vindicate their conduct in reference thereto. *Randall v. Bingham*, 7 Wall., 523.

5. SAME — FAILURE OF RESPONDENT TO APPEAR IN HIS OWN BEHALF.

Since disbarment proceedings in this Office are not *quasi* criminal in character, the failure of a respondent in such proceedings to appear and testify in his own behalf,

as well as his failure to exhibit to the inspection of the Office the organization and details of his business, may properly be made subjects for consideration in arriving at a conclusion.

6. SAME — DUTY OF AN ATTORNEY TO EXPLAIN PRACTICES CHARGED TO INVOLVE GROSS MISCONDUCT.

When an attorney is charged with dishonest practices before this Office, since the character of such practices is peculiarly within his own knowledge, it is not only competent for him to testify concerning them, but it is his duty to himself, to the Patent Office, and to the public to show, if he can, that such practices are legitimate and proper.

7. SAME — PROPER SUBJECTS OF INQUIRY.

The methods employed by the respondent corporation in gathering in for prosecution applications for patent, the methods employed by the corporation in making searches on inventions, the correspondence carried on with clients, the methods employed for securing fees from clients for foreign patents, for advertising inventions for sale, for appealing rejected applications, in general the methods employed to get money from clients, may be inquired into by the Commissioner, not only as bearing on the fitness of J. W. to continue in practice, but as bearing on the fitness of the corporation to continue in practice, either directly or through its agent. It is impossible in this inquiry to separate the president of the corporation from the corporation of which he is president.

8. SAME — RESPONSIBILITY OF A CORPORATION FOR ACTS OF AN AGENT IN PROFESSIONAL MATTERS.

It appearing that while applications for patent were filed in the name of J. W. as attorney, all correspondence with clients was carried on in the name of the corporation

J. W. & Co., J. W. being the president thereof, J. W. is to be considered as merely the agent of the corporation and the corporation must and should be held responsible for his acts.

9. SAME — PRACTITIONERS — PRESUMPTION AS TO RESPONSIBILITY.

The name of J. W. having appeared continuously since 1893 on papers filed in this Office, he cannot be presumed to be ignorant of the requirements of attorneys or agents practicing before this Office. As president of the corporation he must be held to have been cognizant of and responsible for whatever has been done by the corporation or its employees.

10. THE PUBLIC SHOULD BE PROTECTED IN THE TRANSACTION OF BUSINESS WITH THE DEPARTMENTS.

If it were permissible that a solicitor might falsely and deceitfully obtain business from clients, might utilize the offer of the Government to grant patents in order to defraud citizens, might advise the public falsely that advice would be given free, and might fraudulently induce clients to intrust the prosecution of claims to him without notice of such things being taken by the head of the proper Department, the result would be the organization of combines of confidence men to plunder the public. It is the duty of the head of each Department to protect the public in its relation to such Department.

11. DISBARMENT PROCEEDINGS — STRICTNESS REQUIRED IN THE INVESTIGATION OF DISHONEST PRACTICES.

When the evil results of the business methods of a practitioner have effected great injury upon the Patent Office and have placed the practice before this Bureau upon a low moral plane, if the result of dealing with such practices slightly would be to make the Office an

apologist therefor, and a participant in reprehensible conduct, and thus bring the Government and its administration into contempt, strict dealing will be observed in any investigation concerning such methods.

12. ADVERTISEMENTS, MISREPRESENTATION BY.

An advertisement of an "\$1,800 prize offer," when the largest prize actually paid was \$150, was false and misleading, and was known to be so by the respondents. Whether it called for expenditure on the part of anyone is not material. It was misrepresentation for a purpose, that purpose being to secure the name and address of would-be patentees in order to secure fees from them.

13. NOTICE OF PATENTS PROCURED — DECEPTIVE.

A notice that the number of patents procured in a certain week was 391 and that 124 were sold, when stamped on a letter-head which stated the business of the respondents to be the soliciting of patents and the sale of patents, *Held* to have been intended as a statement of the number of patents procured that week by the respondents and the number of patents sold by them, and is deceptive and misleading.

14. COMPETITION FOR PRIZES — UNFAIR COMPETITION.

A prize competition open only to those who have paid money to the respondents clearly has nothing philanthropic or generous about it, is not intended for broadly stimulating invention, but is intended solely to boom respondents' business. It is necessary to a fair competition that the jury or board of awards should be impartial, disinterested men, competent to decide on the merits, and it is also necessary that such jury or board should see and examine the invention submitted. To permit the merit of inventions to be finally passed upon by inexperienced and incompetent searchers is to make the competition a mere farce and a fraud.

15. SIMPLE INVENTIONS — MISREPRESENTATION — GROSS MISCONDUCT.

To encourage would-be patentees to believe there is a great demand for the most simple inventions when in fact there is no such demand, to endeavor to impress upon the public a false and exaggerated idea of the value of simple inventions, to induce ignorant persons to believe that old and well-tried fields of invention are new and untried fields in which inventions of value can be readily made by them, all for the purpose of inducing the payment of fees for searches and for other purposes, is demoralizing and deceptive and amounts to gross misconduct.

16. SAME — DECEPTIVE STATEMENTS AS TO THE VALUE OF.

While it is true that some simple inventions which required little thought and little knowledge of the prior art on the part of the inventor have proved of value, such is not usually the case. The valuable inventions are those which are the result of hard work, careful study, and experiment by those who have familiarized themselves with what others have done and with the real needs of the art. Further, it is only those simple inventions which are broadly new which are of any considerable value. Hence efforts on the part of parties representing themselves to be attorneys to create in the public mind an impression to a contrary effect are in the nature of fraud — are misleading.

17. ADVICE AS TO PATENTABILITY AND SALABILITY — DECEPTIVE.

An offer to advise free as to patentability and salability of any device, a supposed inventor who had failed to respond to J. W. & Co.'s first letter with its accompany-

ing papers, in view of the fact that the advice given was a mere statement that the device was of a patentable nature, but to determine its patentability a search at a cost of \$5 would have to be made, and a statement that a successful device of this nature if patented immediately and properly handled would net its owner not less than so many thousand dollars, is deceptive and a mere trick to reopen correspondence with the inventor to lead him on to send fees to J. W. & Co.

18. VALUATIONS OF INVENTIONS — MISLEADING ESTIMATES.

The fact that the expert chief of the sales department of J. W. & Co. placed values on inventions at sight, sometimes without even sight of the invention or even full description of it — without study of the invention, without inquiry as to its novelty, and without consultation of books — such valuation being a mere offhand opinion on which neither he nor any other person could have passed intelligent judgment without careful study and full knowledge of all material facts; the fact that this expert never failed to place a substantial value on every device submitted to him; the fact that this expert was one of the incorporators of J. W. & Co., and for a time one of its officers, all show that it was intended that all inventions should be reported to their clients as of very considerable value, without regard to their novelty or real value.

19. SAME — SAME.

The scheme as carried out by J. W. & Co., of placing a valuation on inventions before their novelty was even looked into, is deceptive and fraudulent on its face. It is utterly indefensible and clearly amounts to gross misconduct. The sending of a false valuation in a single case known to be, or which should be known to be, with-

out value, where by reason of such valuation the inventor might be induced to part with a sum of money, indicates, at least, gross negligence. To make a practice of sending out false valuations indicates deliberate purpose.

20. PRELIMINARY SEARCH — PROPER SEARCH.

In order to disclose references that may exist in the records of the Patent Office which are accessible to the public, it is necessary that the search be made by a competent person skilled in this line of work, able to recognize a reference when he sees it, that this expert searcher take sufficient time to fully understand the invention on which he is making the search, and that he take sufficient time to make a thorough and complete examination of all classes of invention that may reasonably be supposed to have any bearing upon the invention.

21. SAME — WHEN REPORT OF SEARCHER SHOULD BE ACCEPTED BY ATTORNEY.

An attorney is not justified in reporting that a thorough examination of the records has been made and no reference found, unless such examination has been made by a competent searcher and in a thorough and careful manner, nor is he justified in accepting the favorable report of an inexperienced or incompetent searcher or the favorable report of even an experienced and competent searcher unless that searcher has had sufficient time within which to make a complete search.

22. SAME — SAME — DUTY OF ATTORNEY — CLOSE REFERENCES SHOULD BE CITED.

It is the duty of an attorney to report the result of a search fully and correctly to the inventor. A false and misleading report upon a search is as grossly deceptive as such a report would be if no search had been made. When references exist which approach the invention so

closely as to throw doubt on the advisability of taking out a patent, they should be called to the inventor's attention, even though they do not completely anticipate.

23. SAME — CRUDE CHARACTER OF INVENTIONS GATHERED IN BY RESPONDENTS.

That an insufficient number of searchers, many of them inexperienced and some of them incompetent, were able in two years to find anticipating references in 20,000 cases shows the supposed inventions gathered in by the respondents through their advertisements and their pamphlets and papers to be merely conceptions of a crude character. It shows that large numbers of persons were falsely induced by the respondents to believe themselves inventors and were led to send fees to the respondents.

24. SAME — SAME — FAILURE TO REVISE REPORTS OF UNSKILLED SEARCHERS.

The failure to revise the favorable reports of unskilled searchers indicates reckless disregard of the rights of clients, indifference to the agreement as to the character of the search, and intended fraud. It was the duty of respondents to have had reports made under such circumstances revised.

25. SAME — SAME — RESPONSIBILITY FOR IMPROPER SEARCHES.

The respondents were bound by their agreement with their clients to have searches made properly. Their failure to do so is gross and inexcusable negligence. They must be held responsible for the acts of their employees in making these searches, particularly as the system under which the searchers worked was of respondents' creation.

26. SAME — SAME — FRAUDULENT REPORTS — GROSS MISCONDUCT.

The sending of favorable reports by personal direction of J. W. in cases in which references had been found by searchers without waiting to obtain copies of these references was nothing less than a deliberate fraud upon the clients and amounts to gross misconduct.

27. SAME — REPORT OF SEARCH — DECEPTIVE AND MISLEADING REPORT — GROSS MISCONDUCT.

A report of search which, while citing an anticipating reference, included a request to send on money for fees and a promise, on receipt of fees, to prepare the necessary application papers and an offer to find a purchaser, is not an unfavorable report and was not intended to be understood by the client as an unfavorable report. It is upon its face a deceptive and fraudulent report. It was intended to deceive and mislead the client. Its use, followed up by the acceptance of fees for the preparation of application papers, is clearly gross misconduct.

28. ATTORNEYS — APPLICATIONS FOR INVENTIONS KNOWN TO BE UNPATENTABLE — DUTY OF ATTORNEYS TOWARD CLIENTS AND PATENT OFFICE.

It is perhaps an open question whether an attorney may properly file an application for patent for an invention which he believes to be unpatentable. If it is certain that the invention is not patentable, the attorney in filing such an application is false to his client and false in his duty toward the office. It is the duty of an attorney to assist the Patent Office in doing justice toward his client and justice toward the public. He cannot be a party to an attempt to secure a patent for what he knows to be old any more than he can permit the office to refuse to his client the protection to which he is entitled.

29. SAME — DUTY OF ATTORNEYS TO CLIENTS — GROSS MISCONDUCT.

When an attorney believes an invention to be unpatentable, he should not file an application therefor without the express direction of the client, given after the reasons why the invention is believed unpatentable have been fully and clearly laid before him. To deceive the client as to facts which negative patentability, or by failure to clearly and definitely state the facts to allow the client to deceive himself as to such facts, is gross misconduct.

30. SAME — SELLING PATENTS.

The propriety of an attorney or solicitor of patents combining the business of soliciting with that of selling patents is questionable. Doubtless it may be done honestly; but propositions for undertaking the sale of inventions which require the payment of a fee in cash in advance are justly condemned.

31. SAME — ADVICE RESPECTING FOREIGN PATENTS.

Advice to take out foreign patents should be given to clients only in those cases in which it is clear that such patents will be of advantage to the clients. In cases in which the invention is not patentable the advice to take out foreign patents presents a plain case of attempt to defraud the client for the benefit of the attorney. That this is gross misconduct is not open to question.

32. SAME — CONCEALMENT OF FACTS FROM CLIENT.

Studious concealment from the client of the true condition of his case, or positive misrepresentation of the condition of the case, in each instance representing the condition of the case more favorably than the facts justified, while at the same time the attorney is urging the taking out of foreign patents or the payment of fees to

the attorney for advertising the invention for sale, is gross misconduct.

33. SAME — INFORMATION TO CLIENT — FRAUD.

An attorney is bound to inform his client of such steps in the progress of the case as he should know, and he should at least tell the truth and treat his client with candor when he does inform or advise him in regard to his case. If he does not do so, and is at the same time urging further expenditure of money for purposes which he knows cannot result in advantage to the client, his misrepresentation of the condition of the case is conclusive evidence of fraud.

34. SAME — DUTY OF ATTORNEY IN APPEAL CASES.

A letter merely stating to a client that his application is finally rejected and the only course open is to appeal without explanation of the references, information as to the grounds of the rejection, or advice as to the wisdom of appealing, such as a capable and honest attorney is bound to give to his client, is not such a letter as in fairness and justice to clients, should be written.

35. SAME — SAME — GROSS MISCONDUCT.

An attorney is employed because he is of greater skill and experience in prosecuting applications than his client. He is bound to give his client the advantage of his skill and experience. When he not only fails to do so, but omits that duty for an unworthy purpose, he is guilty of gross misconduct. At so critical a period in the case as that at which the question of appeal has to be considered, the client is entitled to the best information and the best judgment of the attorney.

36. SAME — SAME — SAME

For persons who represent themselves to be attorneys of experience in practice and skilled in patent matters to

accept appeal fees in cases in which they knew there was nothing patentable and appeal would be useless, without hesitation or explanation, purposely keeping the client in ignorance of the true significance of the examiner's rejection and thus misleading them as to the possibility of favorable action on appeal, is gross misconduct.

37. SAME — SAME — GROSS NEGLIGENCE.

An attorney who after repeated assurances to his client that he would do his best on the appeal, fails to appear to argue the case orally and fails to even file a written brief, is guilty of gross negligence.

38. THE AWARD OF SILVER MEDALS FOR UNPATENTABLE INVENTIONS — GROSS MISCONDUCT.

To award an inventor a silver medal and to state to him that his invention is of special merit and promises to be exceedingly profitable, when the invention is known to be unpatentable and therefore worthless, and to subsequently accept fees for the preparation of an application therefor, shows that the medal was sent intentionally and for a definite purpose and such award is deceptive and fraudulent and amounts to gross misconduct.

39. THE AWARD OF SILVER MEDALS — GROSS DECEPTION.

Even if the silver medals had been sent only in those cases on which favorable reports had been made by the searchers, the fact that such medals, together with the accompanying award-letter, were sent in 11,000 cases shows that many inventors whose inventions were in no sense remarkable, in no sense valuable, and in no sense such as would be selected by any competent or honest board of awards, received these medals, and that the respondents in sending medals in these cases were guilty of grossly deceiving a large number of their clients.

40. RETENTION OF EXCESS OF FEES, DISHONEST.

It appearing that in each of twenty cases \$5 more than the fees agreed on was asked for and paid to the respondents and not returned by them, *Held* that this excess could not have been called for by mistake, and it is not seen that the retention of this excess is anything less than petty cheating.

41. DUPLICATE APPLICATIONS — WHEN IT IS IMPROPER TO FILE.

An attorney who files several successive applications for the same unpatentable invention, in behalf of different clients to whom he has successively reported such invention patentable, is either grossly negligent or has committed a grave offense against law and morals.

42. APPLICATIONS FILED BY RESPONDENTS — DECEPTIVE STATEMENTS.

In view of the fact that only a little over fifty per cent of the applications filed by the respondents have been found to contain allowable claims, the assurance made by them to their clients that "it is extremely rare that a patent is refused on an invention which we report new and patentable," is obviously a falsehood promulgated to deceive the unwary.

43. CHARGES AGAINST RESPONDENTS SUSTAINED.

There can be no doubt that the facts brought out in the record fully sustain the charges, with one exception, and show that respondents carried out in their practice a skillfully planned scheme of deception, misleading and defrauding thousands of would-be inventors out of hundreds of thousands of dollars, and have used, to further their scheme, the offices of the Government and its postal facilities.

44. DUTY OF PATENT OFFICE AS TO RECOGNITION OF ATTORNEYS OR AGENTS.

The Patent Office cannot, without bringing lasting reproach upon itself, permit the continuance of such deliberate and systematic deception of inventors as has been practiced by respondents. The duty of the Patent Office to inventors and the public demands that the respondents be no longer permitted to be recognized as patent attorneys or agents.

45. RESPONSIBILITY OF EMPLOYEES OF A DISHONEST ATTORNEY.

Persons in the employ of an attorney who has been engaged in fraudulent practices when, being in responsible positions, they have coöperated and assisted in carrying forward such practices, and when in view of prior experience, such persons must be presumed to have been aware of the nefarious nature of such practices, must be held to be sharers in his guilt and with him be held unfit to practice before this Office.

DECISIONS CONCERNING INFRINGEMENTS

Compiled, abridged, and selected from various sources.*

1. THREE RIGHTS.

The owner of a valid patent secures, by virtue thereof, three substantive rights: the right to make, the right to sell, and the right to use the patented article. He who invades any one of these rights is an infringer. *Birdsell v. Shaliol*, 112 U. S. 485.

2. MANUFACTURE.

The prohibition against making is as applicable to machines as to the composition of matter. It is an infringe-

* Bound Decision Volumes, Patent Office Gazette, Periodicals — particularly Popular Electricity,¹ and Inventive Age.

¹ O. C. Billman 1910-11.

ment to make for use, although the invention is not used, or is not used by the maker; or to make for sale, though no sale is actually effected; or to make for sale abroad. *Butz Thermo-Electric Regulator Co. v. Jacobs Electric Co.*, 36 Fed. Rep. 191; *Haselden v. Ogden* 3 Fish. Pat. Cas. 378, 11 Fed. Cas. No. 6, 190; *Bloomer v. Gilpin*, 4 Fish. Pat. Cas. 50, 3 Fed. Cas. No. 1558; *Ketchum Harvester Co. v. Johnson Harvester Co.*, 8 Fed. Rep. 586.

3. SALE.

The sale after the expiration of a patent of an article illegally manufactured while the patent was in force is an infringement. *American Diamond Rock Boring Co. v. Sheldon*, 1 Fed. Rep. 870.

4. UNAUTHORIZED USE.

The unauthorized use of a patented invention is an infringement even though it was made by a third person. *Breshnahan v. Tripp Giant Leveller Co. (C. C. A.)*, 102 Fed. Rep. 899.

5. INTERNATIONAL RELATION.

It is an infringement to sell in the United States a patented article purchased in a foreign country from one not claiming under the United States patentee, even though the purchase was made from a person authorized to sell in such foreign country. *Boesch v. Graff*, 133 U. S. 697. But the sale in the United States of an article purchased abroad from the United States patentee is not an infringement, unless the purchase was coupled with a restriction forbidding use or sale in the United States. *Dickerson v. Matheson (C. C. A.)*, 57 Fed. Rep. 524, affirming 50 Fed. Rep. 73.

6. PROCESS AND PRODUCT.

A patent for a machine or process alone is not violated by a sale of the product of an infringing machine or proc-

ess (*Welsbach Light Co. v. Union Incandescent Light Co.* (C. C. A.), 101 Fed. Rep. 131), nor does the sale of a device infringe a patent for its use.

7. PRINCIPLE.

If the principle of an invention is pirated, there is an infringement. *Page v. Ferry*, Fed. Cases, No. 3124.

8. WARNING.

Owners of patents may lawfully warn others against infringement and by means of circulars or letters distributed among agents and customers of a manufacturer give notice of his rights and intention to enforce them, when done in good faith. *Farquhar Co. v. Natl. Harrow Co.*, 93 O. G. 192.

9. REQUISITES FOR DECREE.

A single instance of using the patented improvement amounts to infringement and entitles complainant to a decree. *American Wood Paper Co. v. Fibre Disintegrating Co.*, 23 Wall 566.

10. EXPERIMENTAL USE.

The experimental making or using of a patented invention for the sole purpose of gratifying curiosity or a philosophical taste, or for mere amusement, is not an infringement. *Bonsack Machine Co. v. Underwood*, 73 Fed. Rep. 206. This rule, however, cannot be invoked for the protection of one who uses a patented invention in the ordinary course of his business, or who derives a profit from the result of its so-called experimental use. (*Frearson v. Loe* 9 Ch. D. 48; *Poppenhusen v. New York Gutta-Percha Comb Co.* 2 Fish. Pat. Cas. 62, 10 Fed. Cas. No. 11,283), even though the patentee has publicly offered to sell licenses. Indeed, if the use is of advantage to the user, it need not necessarily be profitable in order to fall

without the rule permitting experimental use. *United Telephone Co. v. Sharples*, 29 Ch. D. 164.

11. RENEWAL OF PATENTED PART.

A part which, although necessary to the operation of a machine, is temporary in its relation to the whole structure, and which the inventor contemplated would have to be renewed at intervals, may be replaced (*Morgan Envelope Co. v. Albany Perforated Wrapping Paper Co.*, 152 U. S. 425), even though it is novel, and covered by the claims of the patent. *Farrington v. Board of Water Commissioners*, 4 Fish. Pat. Cas. 216, 8 Fed. Cas. No. 4687.

12. SAME — EXCEPTION.

The purchaser of the parts of a patented article which has been taken to pieces has no right to reconstruct and use or sell the article. *American Cottontie Co. v. Simmons*, 106 U. S. 89.

13. REQUISITES FOR INJUNCTION.

Mere possession, when unlawful, may be sufficient to justify an injunction restraining use, whether or not it affords ground for damages. *Adair v. Young*, 12 Ch. D.

14. REPAIRS.

Where a machine is patented as a whole, one who has the right to use, but not the right to construct, may, so long as the identity of the machine is not destroyed, make repairs or replace the worn-out parts, but can neither build a new machine, nor reconstruct an old one under the guise of repairs. *Thomson-Houston Electric Co. v. Kelsey Electric Specialty Co. (C. C. A.)*, 75 Fed. Rep. 100.

15. USE NOT NECESSARY.

It is an infringement to manufacture a patented article, though it is never used by the maker, or to use a patented

article, though made by another, or to sell to others the article manufactured by another. *Haselden v. Ogden*, Fed. Cases, No. 6190.

16. CONTRIBUTORY INFRINGER.

A person is liable as a contributory infringer when, without authority, he makes or sells an element or ingredient of a patented combination with the intent that it shall be combined with the other elements or ingredients for the purpose of infringing the patent, or with the knowledge that it will be so used. *Thomson-Houston Electric Co. v. Ohio Brass Co.* (C. C. A.), 80 Fed. Rep. 712.

17. SAME — SALE OR USE.

The same rule applies to the unauthorized sale of appliances or materials for the unlawful use of a patented process, and to the unauthorized sale of machinery which is useful only for making a patented article. *Loew Filter Co. v. German American Filter Co.* (C. C. A.), 107 Fed. Rep. 949; *American Graphophone Co. v. Hawthorne*, 92 Fed. Rep. 516.

18. KNOWLEDGE NECESSARY.

The sale of unpatented articles is not rendered an infringement by the mere fact that they are intended to be used in effecting the purpose of a patented device. Such a sale becomes an infringement, however, when made with knowledge of a restriction imposed by the patentee that such article may be used in connection with his patented machine only when purchased from him. *Heaton-Peninsular Button-Fastener Co.* (C. C. A.), 77 Fed. Rep. 288.

19. MECHANICAL EQUIVALENT.

When in mechanics one device does a particular thing or accomplishes a particular result, every other device known and used in mechanics which experienced and skill-

ful workmen know (without the exercise of the inventive faculty) will produce the same result or do the same particular thing, is a known mechanical equivalent for the first device, although the first may never have been detached from its work and the second put in its place. *May v. Fond du Lac County*, 27 Fed. Rep. 691.

20. SUBSTANTIAL EQUIVALENT.

For the purpose of determining the question of infringement the substantial equivalent of a thing is regarded as the same as the thing itself. *Union Paper Bag Mach. Co. v. Murphy*, 97 U. S. 120.

21. ACTUAL USE NOT NECESSARY.

It constitutes an infringement to manufacture for the purpose of use, even if not actually used. *Butz Thermo-Electric Regulator Co. v. Jacobs Electric Co.*, 36 Fed. 197.

22. EQUIVALENTS.

All equivalents are covered by the patent. *Clough v. Barker*, 106 U. S. 176.

23. SUBSTANTIAL ADOPTION SUFFICIENT.

To infringe a patent, it is not necessary that the thing patented should be adopted in every particular. If the patent is adopted substantially by the defendant, he is guilty of infringement. *Sewall v. Jones*, 91 U. S. 171.

24. CHEMICAL EQUIVALENT.

A chemical equivalent of a substance is another substance having similar properties and producing substantially the same effect.

25. THE CLAIM CONSIDERED.

The claim is the measure of the patentee's rights, and what is not claimed is not patented. *Pitts v. Wemple*, 1 Bliss (U. S.) 87; *Corn Planter Patent*, 23 Wall (U. S.) 181; *Brush Electric Co.*, 40 Fed. Rep. 834.

26. EQUIVALENTS UNDERSTOOD.

As an inventor is always entitled to equivalents their introduction in a claim is an unnecessary intrusion. *Ex parte Reid*, 15 O. G. 882.

27. CLAIMS CONSTRUED.

The several claims of a patent should be so construed that each may represent distinct inventions. *Cohansey Glass Mfg. Co. v. Wharton*, 36 O. G. 343.

28. IGNORANCE — LACK OF INTENT.

The motive or intent with which an act of infringement is committed is immaterial, and that a person may infringe a patent without even knowing of its existence. *Matthews v. Skates*, 1 Fish Pat. Cas. 602, 16 Fed. Cas. No. 9291.

29. PATENTEE LIMITED TO WHAT IS STATED AND CLAIMED.

When the language of the specification and claim shows what the patentee desires to secure as a monopoly, nothing can be held an infringement that does not fall within the terms which he has thus chosen to express his invention. *Chemical Rubber Co. v. Raymond Rubber Co.*, 68 Fed. Rep. 570. But an immaterial change made for the sole purpose of avoiding the exact wording of the claim will not avail to avoid infringement. *Westinghouse v. Boyden Power Brake Co.*, 170 U. S. 537.

30. USE OF PART OF PATENT.

Except where the patent covers merely a particular combination of elements, it is an infringement to use any part of the invention embraced within the patent. *Union Sugar Refinery v. Mathiesson*, 3 Cliff (U. S.) 639, 2 Fish. Pat. Cas. 600, 24 Fed. Cas. No. 14,399. So also when a patent covers several new and independent machines working to a common end; the use of one alone is an

infringement (*Wilkins Shoe Button Fastener Co. v. Webb*, 89 Fed. Rep. 982), although each is capable of independent use. *Wyeth v. Stone*, 1 Story (U. S.) 273.

31. COLORABLE EVASION OF PATENT.

The unauthorized application of a patented machine or device, or a colorable evasion thereof, to a new use, without varying the principle or means, is an infringement. *Cincinnati Ice Machine Co. v. Foss-Schneider Brewing Co.*, 31 Fed. Rep. 469.

32. SAME — CHANGE IN FORM, SHAPE, ETC.

When the substance of a patented invention is taken, and the patentee is not limited by his claim, or otherwise, to any particular form of construction, infringement is not avoided by mere change in the form of the infringing device or of the parts thereof, not resulting in the production of any new and useful result, such changes being merely colorable and evasive. *Westinghouse v. Boyden Power Brake Co.*, 170 U. S. 537; *National Hollow-Brake Beam Co. v. Interchangeable Brake-Beam Co. (C. C. A.)*, 106 Fed. Rep. 693. This rule applies to differences in appearance, name, shape, proportions, dimensions, and to mere structural differences generally. *Union Paper Bag Mach. Co. v. Murphy*, 97 U. S. 120.

33. SAME — EXCEPTIONS.

Even a slight change of form will avoid infringement, when form is the essence of the invention (*Ball, etc., Fastener Co. v. Ball Glove Fastener Co. (C. C. A.)*, 60 Fed. Rep. 399), or when the patentee is entitled to protection only for the precise form described in his claim. *Lewis v. Pennsylvania Steel Co. (C. C. A.)*, 59 Fed. Rep. 129.

34. USE OF PATENTED IMPROVEMENT BY ORIGINAL PATENTEE.

A prior patentee is not entitled to use a patented improvement of his invention without the consent of the patentee thereof. *Bowers v. Pacific Coast Dredging, etc., Co.*, 99 Fed. Rep. 745.

35. SAME — MERIT NOT CONSIDERED.

The comparative utility of two machines or processes is not an absolute test of infringement; nor does comparative superiority or inferiority necessarily import noninfringement. *Crown Cork, etc., Co. v. Aluminum Stopper Co. (C. C. A.)*, 108 Fed. Rep. 845.

36. CHANGES TO AVOID INFRINGEMENT.

A combination which substantially embodies the principle of a prior patented combination and employs all the elements thereof for the accomplishment of the same result, in the same manner, is an infringement, notwithstanding formal or colorable changes. *Lake Shore, etc., R. Co. v. National Car Brake Shoe Co.*, 110 U. S. 229; *Heaton Peninsula Button Fastener Co. v. Elliott Button Fastener Co.*, 58 Fed. Rep. 220. This rule, however, is subject to the limitation that a patent which is limited to be a specific combination or arrangement of old elements is not infringed by a different combination or arrangement of the same elements. *Seymour v. Osborne*, 11 Wall (U. S.) 516; *Lalance, etc., Mfg. Co. v. Haberman Mfg. Co.*, 54 Fed. Rep. 517. In any event, a substantially different combination is one which differs substantially in construction, mode of operation, and result does not infringe. *Adams Electric R. Co. v. Lindell R. Co. (C. C. A.)*, 77 Fed. Rep. 432; *Electric Railroad Signal Co. v. Hall Railroad Signal Co.*, 114 U. S. 102; *Smith v.*

Fay, 6 Fish. Pat. Cas. 446, 22 Fed. Rep. Cas. No. 13,045.

37. When a patent is sustainable only as for a combination of elements or ingredients, either because the invention consists merely of a new combination of old parts or because the patentee claimed the combination and nothing more as his invention, it is not infringed by a subsequent combination which omits one or more elements essential to the integrity of the patented combination or claimed by the patentee as material, without substituting known equivalents therefor, even though the later combination produces the same result. *Smith v. Fay*, 6 Fish. Pat. Cas. 446, 22 Fed. Cas. No. 13,045; *Dudley E. Jones Co. v. Munger National Hollow Brake-Beam Co. v. Interchangeable Brake Beam Co.* (C. C. A.), 106 Fed. Rep. 693. The omission of an element claimed as material avoids the charge of infringement, even though it is in fact immaterial or unnecessary (*Consolidated Roller Mill Co. v. Coombes*, 39 Fed. Rep. 25; *Kinzel v. Luttrell Brick Co.* (C. C. A.), 67 Fed. Rep. 926), but the omission of an immaterial element not claimed as material does not. *Mast v. Dempster Mill Mfg. Co.* (C. C. A.), 92 Fed. Rep. 327.

38. INFRINGEMENT OF PATENTED PART.

When a part of a combination is new, and is claimed by the patentee as his invention, aside from his claim of the combination, its use without the rest of the combination is an infringement. *Moody v. Fisks*, 2 Mason (U.S.) 112, 17 Fed. Cas. No. 9745; *Adair v. Thayer*, 4 Fed. Rep. 441.

39. USE OF EQUIVALENTS.

A patent for a combination is infringed by the use of some of the elements of the combination, and the substitution of known equivalents for those omitted. *National*

Cash Register Co. *v.* Boston Cash Indicator, etc. Co., 156 U. S. 502; Standard Folding Bed Co. *v.* Osgood (C. C. A.), 58 Fed. Rep. 583. But infringement is avoided when the elements substituted for the omitted elements are substantially different or are new, or, if old, were not known at the date of the patent as proper substitutes for the omitted elements. Bavey Pegging Machine Co. *v.* Prouty (C. C. A.), 107 Fed. Rep. 505; Fuller *v.* Yentser, 94 U. S. 288; Webster *v.* New Brunswick Carpet Co., 1 B. & A. Pat. Cas. 84.

40. SAME — COMPOSITION PATENT.

A patent for a composition of matter is infringed by a subsequent composition which is substantially similar — that is, which contains substantially the same ingredients operating in the same manner, and accomplishing the same result — even though it may be slightly or colorably different. Matthews *v.* Skates, 356, 1 Fish. Pat. Cas. 602, 16 Fed. Cas. No. 9291; Ready Roofing Co. *v.* Taylor, 15 Blatchf (U. S.) 95, 20 Fed. Cas. No. 11,613. But where the differences are substantial, there is no infringement. Goodyear *v.* Berry, 2 Bond (U. S.) 189, 3 Fish. Pat. Cas. 439, 10 Fed. Cas. No. 5566.

41. SAME — EXCEPTION.

A composition which omits one or more of the essential ingredients of the patented composition does not infringe. Smith *v.* Murray, 27 Fed. Rep. 69; Otley *v.* Watkins, 36 Fed. Rep. 323.

42. TERRITORIAL GRANTEE.

A territorial grantee cannot be restricted from advertising and selling within his territory even though the purchasers may take the patented article outside the vendor's territory. Hatch *v.* Hall, 30 O. G. 1096.

43. CONTRIBUTORY INFRINGEMENT ETC. — A RECENT CASE.

HENRY *et al.* v. A. B. DICK COMPANY

(Supreme Court of the United States. March 11, 1912)

Patents — Suit for Violation of Licenses — Jurisdiction of Federal Court.

In determining whether a suit is one arising under the patent law and cognizable only in a court of the United States or one upon a contract between the patentee and his assignees or licensees and cognizable only in a State court unless there be diversity of citizenship the test of jurisdiction is: Does the complainant "set up some right, title or interest under the patent laws of the United States, or make it appear that some right or privilege will be defeated by one construction, or sustained by another, of those laws?"

Same — Rights Thereunder.

The property right in the materials composing a patented machine and the right to use for the purpose and in the manner pointed out by the patent are separable rights.

Same — Same.

The property right to a patented machine may pass to a purchaser with no right of use or with only the right of use in a specified way or at a specified place or for a specified place or for a specified purpose. The unlimited right or exclusive use which is possessed by and guaranteed to the patentee will be granted if the sale be unconditional; but if the right of use be confined by specific restrictions the use not permitted is necessarily reserved to the patentee.

Same — Same — Limitation Thereof.

There are certain limitations upon the right of vending and using a patented machine. If the thing patented belongs to a class of things which on account of their inherent danger to the public safety or health cannot be sold or used because prohibited by an exertion of the police power of a State, they will not be immune to such law because patented.

Same — Violation of Agreements — Infringement.

Any reasonable stipulation not inherently violative of some substantive law imposed by a patentee as part of a sale of a patented machine is valid and enforceable. If the stipulation is one which qualifies the right of use in a machine sold subject thereto, so that a breach would give rise to a right of action upon the contract, it would at the same time be an act of infringement, giving to the patentee his choice of remedies.

Same — Contributory Infringement — Definition.

“Contributory infringement,” says Judge Townsend in *Thomson-Houston Co. v. Kelsey Co.* (72 Fed. Rep., 1816), “has been well defined as the intentional aiding of one person by another in the unlawful making, or selling or using of the patented invention.

Same — Same.

Where a patented machine was sold by complainant with a license agreement that it was to be used only with ink made by complainant, and defendant, with knowledge of such license agreement, sold to the owner of such machine ink not made by complainant, with the expectation that this ink was to be used in connection with such machine. *Held* that the acts of defendant constituted contributory infringement of complainant's patent.

DECISIONS AFFECTING THE RIGHTS OF PATENTEEES

Compiled, Abridged, and Selected

1. ABANDONMENT.

Abandonment of the use of a machine is not evidence that it is a mere abandoned experiment. *Pickering v. McCoulough*, 13 O. G. 818.

2. SAME — INVENTIONS AND APPLICATIONS.

There is a material difference between the abandonment of inventions and applications. The first gives the invention to the public and is irretrievable. In the second case the application may be renewed or a new application may be filed. *Western Elec. Co. v. Sperry Elec. Co.*, 65 O. G. 597.

3. SAME — WILLFUL OR NEGLIGENT DELAY.

An invention may become abandoned by a willful or negligent postponement of the assertion of the inventor's rights or by an attempt to withhold the benefit of his improvement from the public until a similar improvement is made and introduced by others. *Ex parte Woodbridge*, 15 O. G. 564.

4. FORFEITURE.

Forfeiture, even for two years after the allowance of a patent, does not *per se* forfeit applicant's right to apply for a patent on the same invention. *Sibbald v. Cassidy*, 61 O. G. 1165.

5. RENEWAL.

A renewal application is, for purpose of interference, a continuation of the earlier application and takes its date. *Duchemin v. Priester*, 58 O. G. 1416.

6. ABANDONED APPLICATIONS.

Abandoned applications on file in the Patent Office are not open to public inspection. *Ex parte Wyckoff*, 59 O. G. 1104.

7. SAME — WHEN REVIVED.

In order to revive an abandoned application unavoidable delay covering the entire period of delay must be shown. *Ex parte Heine*, 64 O. G. 1006.

8. REISSUES.

A reissue "shall be for the same invention as the original patent as such invention appears from the specification and claims of such original."

The lapse of two years will ordinarily be treated as evidence of an abandonment of the matter not originally claimed. *Topliff v. Topliff*, 59 O. G. 1257.

9. SAME — ENLARGED CLAIM.

When an applicant has by "inadvertence" claimed less than he was entitled to claim he may have a reissue with enlarged claims. *Ex parte Stanley*, 60 O. G. 735.

10. ASSIGNMENT BEFORE PATENT ALLOWED.

Inventions may be assigned before they are patented. *Cammeyer v. Newton*, 11 O. G. 287.

11. LICENSE NOT TRANSFERABLE.

A license by a patentee to use his invention is personal and is not transferable to a third party. *Eclipse Windmill Co. v. Woodmanse Co.*, 32 O. G. 1603.

12. ASSIGNMENT — WRITTEN AGREEMENTS.

All interests in patents are assignable in writing. *Campbell v. James*, 18 O. G. 1111.

13. SPECIFICATION — REQUIREMENTS.

A specification may properly state in a brief form the present state of the art to which it relates, but may not argue the question of the superiority of this over other inventions for the purpose.

Discussions and disparaging remarks as to the inventions of others are inadmissible. *Ex parte Williams*, C. D. 1872, p. 46.

14. SAME — INCOMPLETENESS.

If it requires experiment and invention to make and use the matter described in a patent the patent is void. *Webster Loom Co. v. Higgins*, 16 O. G. 675.

15. SAME — RESTRICTION.

A statement that no one else has been able to accomplish a certain result is inadmissible in a specification. *Ex parte Blakeman*, 98 O. G. 791.

16. MARKING ARTICLES.

After application for a patent the article may be stamped "patent applied for," and the word "patented" may be affixed when the patent has been allowed but not issued. *Schwebel v. Bothe*, 40 Fed. Rep. 478; *Lauferty v. Wheeler*, 11 Daly (N. Y.) 194.

17. SAME — AFTER PATENT EXPIRES.

The manufacturer of a patented article can continue to affix to it the word "Patented," even after the patent has expired, without legal liability. *Wilson v. Singer Mfg. Co.*, 9 Bliss. 173.

18. PATENT RIGHTS.

A patent is *prima facie* evidence that the patentee was the first and original inventor. *Cushman v. Parham*, C. D. 1876, p. 130.

Patent rights extend throughout the United States and are not subject to seizure and sale on execution. *Stevens v. Gladding*, 17 How. 447.

19. SAME — JURISDICTION.

"The right of property in letters patent exists by virtue of Federal laws exclusively, and one incident of such right is the right to sell the patent anywhere within Federal jurisdiction. Hence it has been declared that state statutes which impose conditions upon the sale of patents, as by requiring the patent to be registered, are unconstitutional and void. Such conditions are regarded as curtailing and nullifying the Federal laws, and the imposition of punishment for noncompliance is an attempt to punish the patentee for doing what Congress has authorized him to do." *Ex parte Robinson*, 4 Fish. Pat. Cases 186; 2 Bliss (U. S.) 314, 20 Fed. Cas. No. 11,932; *People v. Russel*, 25 Pat. Off. Gaz. 504.

"Emphasis has been laid upon the distinction between control of the letters patent and control of the patented articles. It is generally recognized that as properly patented articles are not under Federal jurisdiction, and may be subjected to control and taxation by the states, so far as such control is not repugnant to other recognized principles of law." *Patterson v. Kentucky*, 97 U. S. 501. *State v. Bell Telephone Co.*, 36 Ohio St. 296.

20. RESTRAINING PUBLICATION OF DISCOVERY.

The state court may, at the instance of the inventor or discoverer, restrain a person from divulging the secret of an unpatented device or improvement. *Hammer v. Barnes* (Supreme Court Spec. T.), 26 How. Pr. (N. Y.) 174.

21. JOINT INVENTORS — MECHANICAL SKILL — EMPLOYER AND EMPLOYEE.

(Cogswell & Judson *v.* Burke, 1872.) Mechanical skill and professional knowledge may always be sought by inventors without jeopardizing their rights. In *Gilbert v. Clarke, Bonzans and Griffin*, 1874, where the relation of employer and employee was established between parties with reference to the embodiment of a new device suggested by the employer and communicated in its general outlines to the employee, who was consulted as a skilled mechanic and who made suggestions of improvement in the details, which were adopted, it was held that the invention, as ultimately perfected, belonged to the employer.

So in *Blandy v. Griffith*, 3 Fisher, it was held that —

“As long as the root of the original conception remains in its completeness, the outgrowth, whatever shape it may take, belongs to him with whom the invention originated.”

22. SAME — MECHANICAL SKILL.

The employment of mechanical skill to construct a machine in accordance with ideas furnished by another gives no right to the invention. *Yoder v. Mills*, 34 O. G. 1048.

23. RELATION OF APPLICANT AND COMMISSIONER.

The law imposes upon the applicant the duty of looking after his own interests. The Commissioner and his subordinates are charged with the protection of the interests of the public. *Dunham v. Seymour*, Com. of Pat., 71 O. G. 601.

24. THE GOVERNMENT AND THE INVENTOR.

The Government of the United States has no right to use a patented invention without compensation to the owner of a patent. *James v. Campbell*, 21 O. G. 337.

25. SAME — EMPLOYEES.

Government employees are entitled to their inventions. The Government can lay no claim to them. *Riley v. Barnard*, 59 O. G. 1919.

26. SAME — ABSENCE OF AGREEMENT.

When an employee of the Government makes an invention he is entitled to a patent in the absence of an agreement on his part to the contrary. *Solomons v. United States*, 137 U. S. 342.

27. ANTICIPATION.

Anticipation ought not to be found in prior devices in the art to which a patent belongs unless they are of such a character as to furnish clear, if not unmistakable, suggestion of the improvement in question, and if the anticipatory suggestion comes from another art, it should, of course, have less significance, proportioned inversely to the distance from which it is brought. *Williams v. American*, 86 Fed. 641, 30 C. C. A. 318.

28. SAME — KNOWLEDGE AFTER THE FACT.

It should be borne in mind that this process was not one accidentally discovered, but was the result of a long search for the very purpose. The surprise is that the manufacturers of steel, having felt the want for so many years, should never have discovered, from the multiplicity of patents and of processes introduced into this suit and well known to the manufacturers of steel, that it was but a step from what they already knew to that which they had spent years in endeavoring to find out. It only remains now for the wisdom which comes after the fact to teach us that Jones (the inventor) discovered nothing, invented nothing, accomplished nothing. *Carnegie v. Cambria*, 185, U. S. 403, 46 L. Ed. 968, 22 S. Ct. 698.

29. SAME — MACHINE.

A machine or combination which is not designed by its maker, nor actually used nor apparently adapted to perform the function of a patented machine or combination but which is discovered in a remote art and was used under radically different conditions to perform another function, neither anticipates nor limits the scope of the patent.

Where mechanical improvements have moved so fast as they have in the last half century, great caution is required in investigating alleged anticipations which date back nearly the whole of that period, and so far as they did not go into use so there was no practical exhibition of them, it is often difficult to determine whether they disclosed such full, clear, and exact terms as are necessary to anticipate. Judge Sanborn and Putnam in *National v. Inter-American*, 106 Fed. 693, 45 C. C. A. 544 and *Draper v. American*, 161 Fed. 728, 88 C. C. A. 588.

30. DRAWINGS.

The object of the drawings filed in the Patent Office is attained if they clearly exhibit the principles involved, and, in a case like this, rigid adherence to the dimensions thus exhibited is not required or expected, and if the intelligent mechanic would so proportion the dimensions as to secure practical results, inutility is not demonstrated by experiments with material identical in form and proportion of parts with the drawings in the patent.

The drawings are not required to be working plans, they must be read in connection with the description and claims, and any interference arising from omissions or inconsistencies in the drawings must yield to a legally sufficient specification. *Crown v. Aluminum*, 108 Fed. 845, 48 C. C. A. 72. *Western v. American*, 131 Fed. 75, 65 C. C. A. 313.

31. DESCRIPTION.

In case of a claim for a combination, where all of the elements are old, and where the invention consists merely in the new combination of old elements or devices whereby a new and useful result is attained, such combination is sufficiently described if the elements or devices of which it is composed are all named and their mode of operation given, and the new and useful result to be accomplished pointed out, so that those skilled in the art and the public may know the extent and nature of the claims, and what the parts are which coöperate to produce the described new and useful result. *Bates v. Coe*, 98 U. S. 31, 25 L. Ed. 68.

SOME DECISIONS OF NOTE

Selected and Abridged

The present practice is reflected in these decisions and many important lessons may be learned from them.

1. *HURD et al. v. SEIM et al.*

(Circuit Court, N. D. New York, July 26, 1911.
189 F. R., p. 591)

Patents — Suit for Infringement — Intervention.

In an infringement suit against users or dealers in the alleged infringing article, there is no ground for permitting intervention by the company from which defendants bought such articles where the defense which it seeks to set up is equally open to the defendants; such company having the right to assume or assist the defendants in making such defense without becoming a party.

Patents — Suit for Infringement — Construction of Decree.

In a decree entered by the Circuit Court of Appeals of the Second Circuit adjudging a patent valid and infringed, a provision excepting from the injunction restraining the defendant from selling infringing articles, such articles as were made by a company in Indiana, where in a suit

against such company the patent had been held invalid, was not adjudication of defendant's right to sell such articles in the Second Circuit, but merely reserved that question until it should arise in a proper case.

Patents — Infringement — Effect of Prior Adjudication.

A patent was held valid and infringed by a Circuit Court in New York, and its decree was affirmed by the Circuit Court of Appeals of the Second Circuit and also by the Supreme Court. In a suit in Indiana against a manufacturer the patent had been held invalid, and the decree was not appealed from. *Held*, that such decree did not authorize the sale or use in New York or elsewhere in the Second Circuit of articles thereafter made by the defendant in that suit, which were clear infringements of the patent.

2. PERKINS ELECTRIC SWITCH MFG. CO. *v.* YOST
ELECTRIC MFG. CO.

(Circuit Court, N. D. Ohio, W. D., Nov. 1, 1911.
189 F. R., p. 625)

Patents — Suit for Infringement — Accounting for Profits and Damages.

Where the controversy between the parties to an infringement suit over a certain device, of which defendant had made only a small number and had discontinued before suit brought, involves no substantial amount in the way of damages or profits, an accounting will not be directed although infringement is found.

Patents — Suit for Infringement — Division of Costs.

Where a complaint alleged infringement by a number of devices made by defendant, but succeeded as to one only, a division of the costs of the trial court will not be made proportionate to the final result.

3. ELECTRIC RENOVATOR MFG. CO. *v.* VACUUM
CLEANER CO. *et al.*

(Circuit Court, W. D. Pennsylvania, Aug. 5, 1911.
189 F. R., p. 756)

Injunction — Grounds — Unfair Competition in Business — Threatening Suits.

A defendant, who, after claiming that complainant was manufacturing articles infringing its patent, and being requested to bring suit to determine the question, instead of doing so, persistently and for nearly two years continued to send threatening letters and circulars to complainant's customers and persons who might become customers, but without bringing suit against any, is chargeable with bad faith and unfair business methods, which entitle complainant to an injunction.

4. GRAFF, WASHBOURNE & DUNN *v.* WEBSTER *et al.*

(Circuit Court, E. D. New York, July 26, 1911.
189 F. R., p. 902)

Patents — Infringement — Designs.

Whether a design infringes a design patent cannot be determined solely by looking to the elements or the details in carrying out the parts of the design, but the test is whether or not the person desiring to obtain an article bearing the original design would be deceived or induced to purchase the imitation because of its similarity.

Patents — Designs — Double Patenting.

An inventor may patent a component detail of a design, and at the same time an arrangement of that design with the addition of a particular style of chasing, without either patent being open to attack as invalid for double patenting.

5. JOHNSON *v.* JOHNSON

(Circuit Court, D. New Jersey, Sept. 11, 1911.
190 F. R., p. 28)

Patents — Infringement — Improvement Patents.

Where a patent sued on and one alleged to infringe are not pioneer patents and do not embody a primary invention, but are both only for improvements on the prior art, and defendant's machine can be differentiated, the charge of infringement cannot be maintained.

6. HURD *et al.* *v.* WOODWARD Co.

(Circuit Court, N. D. New York, Sept. 11, 1911.
190 F. R., p. 29)

Patents — Suit for Infringement — Effect of Previous Conflicting Adjudications.

While a decree of a Circuit Court in an infringement suit against the manufacturer of an alleged infringing article, holding the patent invalid, not appealed from, protects the defendant therein from further suits for infringement of such patent, it affords no protection to its customers or purchasers from them of articles subsequently made by such defendant which infringe the patent, if valid, in vending or using the same, where its validity has been adjudicated by other decisions, affirmed by the Supreme Court of the United States.

7. GENERAL ELECTRIC Co. *v.* E. H. FREEMAN
ELECTRIC Co.

(Circuit Court, D. New Jersey, May 15, 1911.
190 F. R., p. 34)

Patents — Construction — General and Specific Claims.

Where a patent contains specific claims for the one form of structure described in the specification and shown in the

drawings, and also broad and general claims, the latter are not to be so limited as to make them a mere repetition of the specific claims.

Patents — Invention — Effect of Similar Devices in Other Arts.

Invention may exist in a patented device notwithstanding the existence of devices more or less similar in other arts.

8. COMBUSTION UTILITIES CORPORATION *et al.* v.
WORCESTER GAS LIGHT CO.

(Circuit Court, D. Massachusetts, Aug. 8, 1911.

Defendant's Petition for Rehearing, Aug.

26, 1911. 190 F. R., p. 155)

Patents — Validity — Theory of Operation.

Whatever may be the correctness of the theory of operation of a patentee if a new application of old means is sufficiently described to enable those skilled in the art to produce a new and useful result, it is enough to sustain the patent.

9. CROWN CORK & SEAL CO. OF BALTIMORE CITY
v. BROOKLYN BOTTLE STOPPER CO. *et al.* SAME
v. AMERICAN CORK SPECIALTY CO. *et al.*
SAME v. JOHNSON

(Circuit Court, E. D. New York, June 12, 1911.

190 F. R., p. 323)

Patents — Suit for Infringement — Parties.

Individuals who organized a corporation with a small capital for the purpose of enabling them to infringe a patent through the corporation without subjecting themselves to personal liability may be joined with the corporation as defendants in a suit for the infringement, and held jointly liable therefor.

10. KREPLIK *v.* COUCH PATENTS CO.

(Circuit Court of Appeals, First Circuit, Oct. 3, 1911.
190 F. R., p. 565)

Patents — Infringement — Combinations.

The inventive act in a combination patent is the making of the component parts, capable of combination and fit to be united to constitute the combination, and infringement of such a patent is complete when the component parts of the combination are made or sold fitted to be put together, and intended to be put together.

11. THOMAS A. EDISON, INC., *v.* IRA M. SMITH
MERCANTILE CO.

(Circuit Court, W. D. Michigan, S. D., July 25, 1911.
188 F. R., p. 925)

Patents — Rights of Patentee — Price of Sale.

A patentee may, by appropriate contract, reserve to himself control over the price or other conditions attending the public enjoyment of the patented article.

Patents — Patented Article — Sale — Restrictions.

Where price restrictions and other conditions are imposed by contract on the sale of a patented article, such restrictions will or will not be considered as running with the article, depending in each case on the transaction by which the patentee offered the article to the public for use; the right of use and resale being such only as might be normally appropriate to the article and implied from the circumstances of the original sale.

Patents — Sale of Patented Article — Price Restrictions — Injunction.

Patented phonograph records were manufactured and sold under contracts authorizing jobbers and dealers to resell the same, provided that such resale should not be

made except for a specified price, and that on any breach of the condition the license to use and vend the record implied from the purchase for sale immediately terminated. The stock of an authorized dealer in such records having been damaged by fire, it was abandoned to an insurance company which sold the stock to a salvage company by which it was sold to defendant, some of the records being in the original cartons and others having been replaced in blank cartons. *Held*, that defendant having offered such records for sale at cut prices with knowledge of the restrictions under which they were originally sold was subject to an injunction restraining a resale at less than the contract prices.

Patents — Sale of Patented Article — Price Restrictions.

The right of a patentee to impose a price restriction on sale of a patented article extends to a licensee to whom has been granted the exclusive right to make, use, and sell the patented invention throughout the United States.

Patents — Sale in Violation of Restrictions — Injunction — Adjudication of Patent.

Where there was nothing to rebut the presumption of validity of a patent, and there was a certain public acquiescence, it was no objection to the issuance of a temporary injunction to restrain defendant's sale of the patented article in violation of price restrictions that the patent had never been adjudicated.

12. PARKE-DAVIS & CO. *v.* H. K. MULFORD CO.
(Two Cases)

(Circuit Court, S. D. New York, April 28, 1911.
189 F. R., p. 95)

Patents — Validity — Multiplication of Claims.

It is not objectionable for a patentee to first make as broad a claim as he can in good faith and follow it with

narrower claims differentiated from each other to protect himself against possible anticipations of which he may not be aware.

13. W. W. SLY MFG. CO. *v.* RUSSELL & CO.

(Circuit Court of Appeals, Sixth Circuit, July 12, 1911.
189 F. R., p. 61)

Patents — Construction — Limitation by Proceedings in Patent Office.

Where an applicant for a patent acquiesces in the rejection of the claims presented, and amends the same or substitutes others to meet the objections of the Patent Office, he must be deemed to have surrendered and disclaimed what he has thus conceded, and is bound by the limitation so imposed; and in such case it is immaterial whether the Patent Office was right or wrong in rejecting the original claims.

14. AMERICAN GRAPHOPHONE CO. *v.* VICTOR TALKING MACH. CO. *et al.*

(Circuit Court, D. New Jersey, Jan. 3, 1911.
188 F. R., p. 431)

Patents — Suit for Infringement — Effect of License.

A license under a patent for a stated term cannot be terminated before the expiration of such term except by mutual agreement of the parties or the adjudication of a court, and the licensor cannot, by himself declaring a forfeiture, maintain a suit under the patent laws for infringement against the licensee.

Patents — License — Revocation.

Where a contract provides for an exchange of licenses to manufacture under specified patents severally owned by the respective parties, the consideration being such mutual agreements, one party cannot elect to abrogate

or rescind it with respect to a single license while retaining it in effect as to the others.

15. COMMERCIAL ACETYLENE Co. *et al.* v. ACME
ACETYLENE APPLIANCE Co. *et al.*

(Circuit Court, E. D. Michigan, S. D., April 26, 1911.
On Motion for Rehearing, May 11, 1911.
188 F. R., p. 89)

Patents — Validity — Abandonment — Method and Apparatus Applications.

A method and the apparatus for practicing such methods are distinct things, and may be the subjects of separate inventions and covered by separate patents; and, where separate applications are made for each by the same inventor, his withdrawal or abandonment of one does not affect the validity of a patent granted for the other.

16. JOHN KITCHEN, JR. Co. v. LEVISON
(Circuit Court of Appeals, Ninth Circuit, July 3, 1911.
188 F. R., p. 658)

Patents — Reissues — Presumption of Regularity of Proceedings.

From the reissue of a patent it is to be presumed that the law was complied with, and the proceedings can only be impeached for fraud.

17. NATIONAL BINDING MACH. Co. v. JAMES D.
McLAURIN Co.

(Circuit Court, S. D. New York, March 2, 1911.
186 F. R., p. 992)

Patents — Infringement — Defenses.

Infringement is not avoided by the fact that defendants' machine does not work as perfectly as complainants', provided it is intended to work in the same way.

18. COVER *v.* AMERICAN THERMO-WARE CO. *et al.*

(Circuit Court, N. D. Illinois, E. D., April 25, 1911.
188 F. R., p. 670)

Patent — Invention — Substitution of Materials.

The making of a device either in whole or in part of materials better adapted to the purpose for which it is used than materials of which those of the prior art were made, and for that reason better and cheaper, unless the mode of operation is thereby changed, does not constitute patentable invention.

19. RYDER *et al.* *v.* TOWNSEND.

(Circuit Court, N. D. New York, April 1, 1911.
188 F. R., p. 792)

Patents — Validity — Broad and Specific Claims.

When an inventor makes an invention and in his specification points out a specific construction and also has a general broad claim, and when this is done, in order to sustain the broader claim, it is not necessary that he should point out in his patent that the specific construction shown is not essential to the invention.

20. GENEVA MFG. CO. *et al.* *v.* NATIONAL FURNITURE CO. *et al.*

(Circuit Court, N. D. Illinois, March 27, 1911.
188 F. R., p. 662)

Patents — Reissues — Validity.

A reissue patent issued on an application filed as soon as the patentee discovered that his original claims had inadvertently been made too broad, and which narrows them to his actual invention, is valid.

21. MONEYWEIGHT SCALE CO. *v.* TOLEDO COMPUTING SCALE CO.

(Circuit Court of Appeals, Seventh Circuit, Jan. 3, 1911. 187 F. R., p. 826)

Patents — Reissues.

The inadvertence of the solicitors of an applicant for a patent is his inadvertence, and, on the other hand, their erroneous judgment in submitting to the rejection of claims is his erroneous judgment, and he is estopped from presenting any of such rejected claims in an application for a reissue.

Patents — Reissues — Inadvertence.

Where none of the original claims presented by an applicant for a patent was adequate to cover the invention disclosed by the specification and drawings, acquiescence in the rejection of such claims is not an abandonment of the invention as an entirety, and the failure of his solicitors to submit adequate claims is an inadvertence which may entitle the applicant to a reissue.

22. DAVIS *et al.* *v.* A. H. REID CREAMERY & DAIRY SUPPLY CO.

(Circuit Court, E. D. Pennsylvania, Feb. 16, 1911. 187 F. R., p. 157)

Patents — Suits for Infringement — Laches.

Mere delay in the bringing of a suit for infringement of a patent, where it was because of the inability of the owner to bear the expense of the litigation, is not such laches as will defeat the suit.

23. MCCREERY ENGINEERING CO. v. MASSACHUSETTS
FAN CO. *et al.*

(Circuit Court, D. Massachusetts, Feb. 3, 1911.
186 F. R., p. 846)

*Patent — Patentability — Invention "on Sale" for More
than Two Years.*

A patentee of a ventilating apparatus, some three years before he applied for the patent, contracted to build and install in a church an apparatus according to plans and specifications shown and in substantial conformity with that of the patent, and to have the structure completed by a date more than two years prior to the filing of the application. *Held*, that the apparatus was "on sale," within the meaning of Rev. St. § 4886 (U. S. Comp. St., 1901, p. 3382), at least by the date when it was agreed to be completed, although it was not in fact completed by that time, and that it rendered the patent void.

24. AUTOPIANO CO. v. AMPHION PIANO PLAYER CO.

(Circuit Court of Appeals, Second Circuit, March 15,
1911. 186 F. R., p. 159)

Patents — Infringement.

A patent for the very character of device which a prior patentee had rejected as objectionable and sought to avoid, as shown by his specification, carries with it a strong presumption that the later device is not an infringement of the earlier patent.

Patents — "Pioneer Patent."

A pioneer patent is one covering a function never before performed, a wholly novel device, or one of such novelty and importance as to make a distinct step in the progress of the art as distinguished from a mere improvement or perfection of what had gone before.

25. INTERURBAN RY. & TERMINAL CO. *v.* WESTINGHOUSE ELECTRIC & MFG. COMPANY.

(Circuit Court of Appeals, Sixth Circuit, March 24, 1911. 186 F. R., p. 166)

Patents — Anticipation — Prior Abandoned Application.

An abandoned application for a patent is not a bar to a patent to a later applicant, either as negating novelty or as a printed publication.

Patents — Prior Public Use — Sufficiency of Evidence.

In order to defeat a patent by evidence of prior public use more than two years before application for the patent was made by another, the proof must be very clear and definite, and as a general proposition mere oral testimony, depending on the memory of the witnesses, without the production of any visible sign or contemporary memoranda certainly fixing the character of the alleged anticipating structure, will not be regarded as sufficient, although such rule is not inflexible.

26. WARNER INSTRUMENT CO. *v.* STEWART & CLARK MFG. CO.

(Circuit Court of Appeals, Seventh Circuit, Jan. 3, 1911. 185 F. R., p. 507)

Patents — Invention — Combination of Old Elements.

The mere bringing together of old parts and allowing each to work out its own effect, without producing some new machine or product, is not invention; but, to render a combination of old elements patentable, it must produce a different force or effect or result from that given by the parts separately.

27. ANTON *v.* GRIER BROS. CO.

(Circuit Court of Appeals, Third Circuit, March 23,
1911. 185 F. R., p. 796)

Patents — Invention — Combination of Old Elements.

To sustain a patent with a combination of old elements, a new result must be obtained, which is due to the joint and coöperating action of all of the old elements.

28. HESTONVILLE, M. & F. PASS. RY. CO. *et al.*
v. McDUFFEE *et al.*

(Circuit Court of Appeals, Third Circuit, Feb. 21, 1910.
185 F. R., p. 798)

Patents — Validity and Construction — Effect of Delay and Amendments of Application.

Where an applicant for a patent after his application has been rejected and lain dormant for years, during which time the art has made rapid progress, amends the same, and on the basis of such amendments makes claims of a different character, it is the duty of the courts to scrutinize carefully the patent issued to see that it has not been enlarged in scope beyond the invention disclosed in the original application.

29. DOBLE *v.* PELTON WATER WHEEL CO.

(Circuit Court, N. D. California, Dec. 30, 1910.
186 F. R., p. 526)

Patents — Anticipation — Accidental Use of Device.

The mere accidental employment of a feature or element of a device, where its real value, for a purpose for which it is afterward put in use by another, is not recognized at the time of such accidental use, cannot be invoked to anticipate a patent for the later device.

Patents — Invention — Simplicity of Device.

Simplicity of a device is no evidence of want of invention nor of obviousness, but in such cases the question of patentability may, and in many cases must, be determined largely from the results attained.

30. WESTINGHOUSE ELECTRIC & MFG. CO. *et al.*
v. OHIO BRASS CO.

(Circuit Court, D. New Jersey, Feb. 10, 1911.
186 F. R., p. 518)

Patents — Suit to Obtain Patent — Laches.

The remedy by bill in equity to obtain a patent which has been refused by the Patent Office, given by the Rev. St. § 4915 (U. S. Comp. St., 1901, p. 3392), is a part of the application for the patent, and is governed by the rule as to laches declared by Rev. St. § 4894 (U. S. Comp. St., 1901, p. 3384), which provides that the failure of an applicant to prosecute his application within one year after any action therein shall be regarded as an abandonment, unless it be shown that the delay was unavoidable.

Words and Phrases — “Unavoidable Delay.”

A delay caused by negligence is not “unavoidable.”

31. COLUMBIA MOTOR CAR CO. *et al.* *v.* C. A.
DUERR & CO. *et al.*

(Circuit Court of Appeals, Second Circuit, Jan. 9, 1911.
On Taxation of Costs, Feb. 8, 1911. 184 F. R.,
p. 893)

*Patents — Construction and Operation — Effect of Delay
in Patent Office.*

Where an applicant for a patent followed strictly the statutes and rules of procedure of the Patent Office, the courts cannot exact a greater measure of diligence from

him, and the fact that he took advantage of the delays which the law permitted him, cannot affect the consideration to which his patent is entitled when granted.

Patents — Validity — Combination Containing Undescribed Element.

A patent is granted for solving a problem, not for stating one, and a claim for a combination which embraces an element only in case it is made capable of being employed in the combination and without disclosing means of adapting it, is invalid as disclosing nothing definite.

Patents — Validity and Infringement Gasoline Automobile.

The Selden patent, No. 549,160, for an improved road engine, granted in 1895 on an application filed in 1879, claim 11, covers, broadly speaking, a combination of three elements — the carriage, the drive mechanism, and the engine. The first two elements were concededly old, and no novelty is disclosed in them. The engine, described as a "liquid hydrocarbon gas engine of the compression type," was also old, there being at the time of the application two forms of such engine in extensive use — the Brayton, or constant pressure, engine with slow combustion and constant flame ignition, operating without explosion, and the Otto, or constant volume, explosion engine. The combination itself was not new in an inventive sense, as the Brayton engine had been applied to motor boats and to some extent to vehicles. As thus broadly stated in the language of the claim, it is void for lack of invention in view of the prior art, but as limited by the specification and drawings, which show an engine of the Brayton type, with certain improvements and adaptations resulting in a decrease in weight and bulk in proportion to the power produced and in increase in speed, the claim discloses invention and is valid as covering a

combination embracing as a novel element an improved liquid hydrocarbon engine of the Brayton type. As so limited, the claim is not infringed by the modern gasoline automobile in which the engine is of the Otto constant volume or explosion type with electric ignition.

32. COTTO-WAXO CHEMICAL CO. *v.* PEROLIN CO.
OF AMERICA

(Circuit Court of Appeals, Eighth Circuit, Feb. 15,
1911. 185 F. R., p. 267)

Patents — Construction of Claims — Proceedings in Patent Office.

A claim in a patent as allowed must be read and interpreted with reference to claims that have been rejected and to the prior state of the art, and cannot be so construed as to cover either what was rejected by the Patent Office or disclosed by prior devices.

Patents — Construction — Proceedings in Patent Office.

The liberal construction allowed to pioneer inventions cannot be invoked in favor of a patentee whose claim was limited to save it from anticipation by previous patents, so as to broaden the claim and practically make it cover what was rejected by the Patent Office.

Patents — Construction — Proceedings in Patent Office.

Where a patentee on the rejection of his application inserts limitations and restrictions for the purpose of obtaining his patent, he cannot, after he has obtained it, claim that it shall be construed as it would have been construed if such limitations and restrictions were not contained in it, nor insist on a construction which will include what he was expressly required to abandon and disavow as a condition of the grant.

33. INDIANA MFG. CO. *v.* NICHOLS & SHEPARD CO.
(Circuit Court, E. D. Michigan, S. D., Nov. 14, 1910.

On Exceptions to Answer and Motion to Strike
out Cross-Bill, May 26, 1911. 190 F. R.,
p. 579)

*Patents — Rights of Licensee — Sale in Violation of
Conditions.*

Where a licensee under a patent entitling him to use a patented machine under certain conditions only, undertakes to use the machine otherwise than in conformity with such conditions, he loses the protection of his license, and is liable as an infringer.

Patents — License — Conditions.

Where a license, authorizing defendant to use certain patents, provided that defendant should maintain specified prices and should place certain trade-mark plates on each machine containing any of the patented improvements, and that it should also make reports of sales and pay money for royalties, provisions as to the maintenance of prices and the application of trade-marks operated as conditions to defendant's right to use the patent, though not so as to the provisions for reports of sales and for payment of royalties.

Patents — Licenses — Validity — Conditions — Price Restriction.

A price restriction in a patent license is a valid condition.

Specific Performance — Patent License — Conditions.

Where a license to manufacture and use patents in the construction of certain machines contained conditions that certain sets of labels, furnished by the licensor, and embodying his trade-mark, should be affixed to every machine made under the license, and that the licensee should

maintain a specified schedule of prices, such covenants were affirmative in character and proper subjects of a bill for specific performance.

Patents — Licenses — Violation — Election or Remedies.

Where a patent licensor conceives that the licensee is operating outside the agreed field, the licensor may elect to disregard the license and sue for infringement, or, if he can show that he has not sufficient legal remedy, he may sue in equity for specific performance.

Patents — License — Estoppel.

Where a patentee licenses the use of the invention, the patentee may not deny the licensee's right to act under the patent, nor may the licensee dispute the validity of the patent within the scope of the license, but the patentee cannot sue the licensee for infringement on the ground that he is operating outside the conditions of the license and at the same time claim that the licensee, by reason of the license, is estopped to dispute the validity or effect of the patent.

Specific Performance — Patent License — Adequate Remedy at Law.

Where a license to embody patents in certain machines provided that the licensee should maintain a specified schedule of prices and that none of the machines containing the inventions should go into the market unless branded with the patentee's trade-marks, etc., the patentee had no adequate remedy at law for a violation of such conditions, and was therefore entitled to sue for specific performance.

Specific Performance — Adequate Remedy — Damages — Penalty.

A license to use patents in certain machines contained conditions as to the manner of use, and declared that, on

the licensee's failure to attach the patentee's labels to machines containing the inventions, it should pay the licensor \$100 as liquidated damages "now estimated, determined, and agreed upon." *Held*, that such clause provided for a penalty and not for liquidated damages, and that its presence in the contract did not conclusively establish that the patentee had an adequate remedy at law sufficient to preclude specific performance.

34. CENTURY ELECTRIC CO. *v.* WESTINGHOUSE
ELECTRIC & MFG. CO.

(Circuit Court of Appeals, Eighth Circuit, Nov. 6,
1911. 191 F. R., p. 350)

Patents — Anticipation — Applications Pending Together.

Where each of several applications, which subsequently ripen into patents to the same inventor, describes the same machine and process and the inventions claimed in all the applications, but no one of the applications claims any invention claimed in any of the others, and they are all pending at the same time, the respective dates of the applications and of the patents and the respective dates when the applications were filed are immaterial, and the applications and patents cannot be used to anticipate or avoid each other.

*Patents — Anticipation — Prior Patents — Identity of
Invention.*

While an earlier patent avoids a later patent to the same patentee for the invention claimed and secured by the former, it does not invalidate a later patent to him for a distinctly different invention not claimed and secured by the earlier patent, whether that invention is general or specific, is of a process or a machine, or of both, and whether it is of an original machine or process, or of an improvement thereon.

Patents — Invention — Number of Patents Procurable.

One who makes several patentable inventions that produce a new and useful process or machine, or both, pertaining to the same subject matter, has the option to take one patent therefor or as many separate patents therefor as he makes patentable inventions.

Patents — Construction — Nature of Patent — "Contract."

A patent is a contract, and it must be interpreted by the same rules of construction as other contracts.

Patents — Construction — Specifications and Claims — Construction as a Whole.

The intention of the parties should be deduced from the entire contract, not from any part of it, or without any part of it.

The specification which is a part of the same application and specification as are the claims must be read and interpreted with them, not for the purpose of contracting or of expanding the latter, but to ascertain from the entire agreement the actual intention of the parties, and that intention when ascertained should prevail.

Patents — Invention — Process and Apparatus.

Separate patents for a new and useful process and for a new and useful apparatus to practice it may be sustained, although no other apparatus to practice it is known.

Patents — Infringement — Presumptions — Decision of Patent Office.

It is a general rule that there is a legal presumption that a process or apparatus of a later patent does not infringe upon that of an earlier patent relating to the same subject.

It is a general rule that a process or apparatus of a

later patent does not infringe the process or apparatus of an earlier patent where the Commissioner has decided there was no interference between them.

There is an exception to this rule to the effect that where a patentee has made a primary invention of a new or useful process or apparatus which accomplishes a result never before produced by such a process or machine, the presumption that a process or apparatus of a later patent on the same subject is for a subordinate improvement or modification of the primary invention and hence subject to an infringement of the patent which secures it, is at least as strong as the presumption of the general rules, because there are many more patents for subordinate improvements and modifications of primary inventions than there are for such inventions, and hence more probability that a given process or apparatus is of the former than that it is of the latter class.

Patents — Infringement — Defenses.

It is no defense to a charge of infringement of a process, an apparatus or a combination clearly described and claimed in a patent that it, or some part of it, was misnamed therein by the patentee, or that the infringer has called it by a different name. Patents protect processes, apparatus and combinations, whatever their names.

35. T. B. WOOD'S SONS CO. *v.* VALLEY IRON WORKS
(Circuit Court, M. D. Pennsylvania, Oct. 19, 1911.
191 F. R., p. 196)

Patents — Invention and Anticipation — Presumptions and Burden of Proof.

A patent implies novelty and invention, and the burden of proof rests upon one attacking its validity to establish anticipation or lack of invention beyond a reasonable doubt.

36. PELTON WATER WHEEL CO. *v.* DOBLE

(Circuit Court of Appeals, Ninth Circuit, Oct. 9, 1911.
190 F. R., p. 760)

Patents — Patentable Combinations — Essentials.

It is not necessary to constitute a patentable combination that each element in performing its own function shall also modify the function performed by the others, but it is generally sufficient if there be such coaction that a result is produced which is new, and the result is new if it is substantially a better result than that which has been accomplished by other combinations.

Patents — Patentable Combinations.

That there is novelty in one of the elements does not justify a claim to a patentable combination of the elements, unless there is coaction between them to produce a new result, but a combination is not unpatentable merely because the result might have been accomplished by other combinations.

RESOLUTION OF THE INVENTOR'S GUILD

This communication to former president Taft is noticeable because the suggestions, while partially carried out, still require attention.

To the Honorable William H. Taft, President of the United States:

WHEREAS: The Constitution of the United States provides:

“The Congress shall have the power to promote the progress of science and useful arts, by securing for limited times, to inventors, the exclusive right to their respective discoveries.”

AND WHEREAS: This Constitutional provision was intended to obtain for the benefit of the nation the publica-

tion of every new and useful invention in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which it pertains to make, construct, compound, or use the invention, after the limited time for which the exclusive right is secured to the inventor by patent; and thereby to secure for the Nation the great benefit which, all experience shows, results to a Nation from publishing inventions, in contradistinction to following a policy which would tend to encourage trade secrets, monopoly, and trade combinations, which minimize the value of inventions to the Nation.

AND WHEREAS: A patent is in effect a contract between the Government and the inventor, by which the Government, in consideration of the right to publish the invention for the benefit of the Nation, agrees that in return for his satisfactory disclosures of his new and useful invention under reasonable conditions, to be determined by the Government, it will secure the inventor for a limited time in the exclusive right to his new and useful invention.

AND WHEREAS: An inventor, after having performed his part in the contract by having made proper disclosure of a new and useful invention to the United States Government officials, is frequently subjected to unreasonable delay, expense, and injustice before obtaining his patent, and after having obtained his patent is not equitably secured in his exclusive right as the Constitution intended that he should be secured in return for his disclosures in good faith of his new and useful invention; and as a consequence of this unfair treatment of inventor patentees, the United States is not obtaining, in the degree that it should, the National benefit of the best inventive work of its many able inventors.

AND WHEREAS: The United States Patent System has been evolved to its present condition without proper consideration of the rights of the Nation, and of the inventors,

who are the two real parties at interest, but on the contrary has been developed to its present condition almost entirely as the result of suggestions from persons who do not occupy the position of one of the parties to the contract which every patent represents; and who do not suffer damage from the delays, complications, injustice and expense characteristic of the United States Patent System and the United States Courts which hear patent causes, said damage being borne principally but indirectly by the Nation and to a lesser degree, but directly, by the inventor patentees.

AND WHEREAS: It is a well-known fact that modern trade combinations tend strongly toward constancy of processes and products, and by their very nature are opposed to new processes and new products originated by independent inventors, and hence tend to restrain competition in the development and sale of patents and patent rights; and consequently tend to discourage independent inventive thought, to the great detriment of the Nation, and with injustice to inventors whom the Constitution especially intended to encourage and protect in their rights.

AND WHEREAS: Under existing methods of trying patent causes, an inventor patentee of average means could not, at his own expense, carry to a conclusion an average patent litigation against a wealthy opponent, and therefore a few wealthy concerns usually acquire nearly all important patents in their field, to the great damage of the Nation because of the restraint of competition and because of the resulting tendency of such inventors to seek protection for their inventions by trade secrets or else to cease inventive work.

AND WHEREAS: Efficient protection by patent of new and useful inventions would offer to the average American manufacturer one of the best methods of meeting foreign

competition and would, in addition, improve quality, reduce first cost, and stimulate fair competition, with resulting benefit to the entire Nation.

RESOLVED: The Inventors' Guild composed exclusively of independent and experienced inventor patentees, does hereby respectfully ask the attention of the President of the United States to the urgent need of reforms in the Patent Office, and also in the courts which hear and decide patent causes; and hereby requests the President to recommend to Congress the advisability of appointing a Committee to confer with experienced and representative inventors with the object of promptly accomplishing such reforms as will result in more effectually carrying out the intention of the Constitution; and to supplement such recommendations by such executive action as in his judgment seems likely to assist in accomplishing the needed reforms.

Respectfully submitted,

INVENTORS' GUILD.

By Ralph D. Mershon, *President*.

FORMS

ASSIGNMENT FORMS

FROM U. S. RULES OF PRACTICE

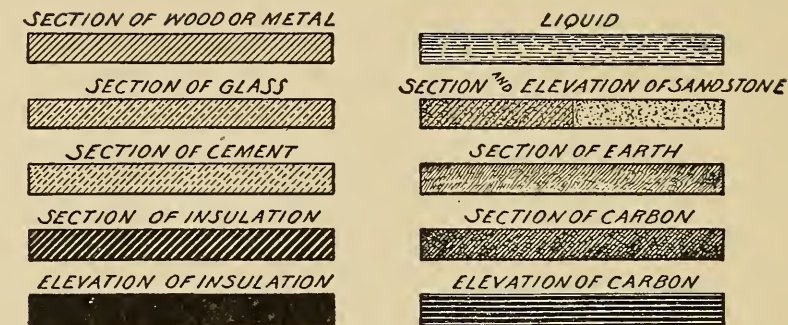
These are only suggestive. Each case requires its own treatment.

38. OF AN ENTIRE INTEREST IN AN INVENTION BEFORE THE ISSUE OF LETTERS PATENT

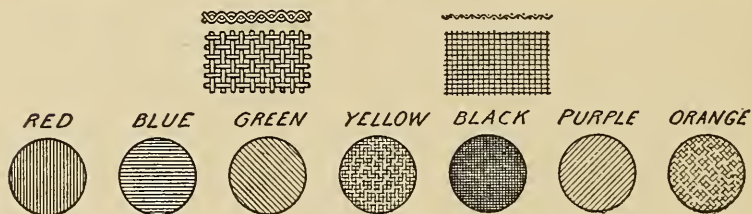
Whereas I,, of, county of, and State of, have invented a certain new and useful improvement in, for which I am about to make application for letters patent of the United States; and whereas, of, county of, and State of, is desirous of acquiring an interest in said invention and in the letters patent to be obtained therefor:

Now, therefore, to all whom it may concern, be it known that, for and in consideration of the sum of dollars to me in hand

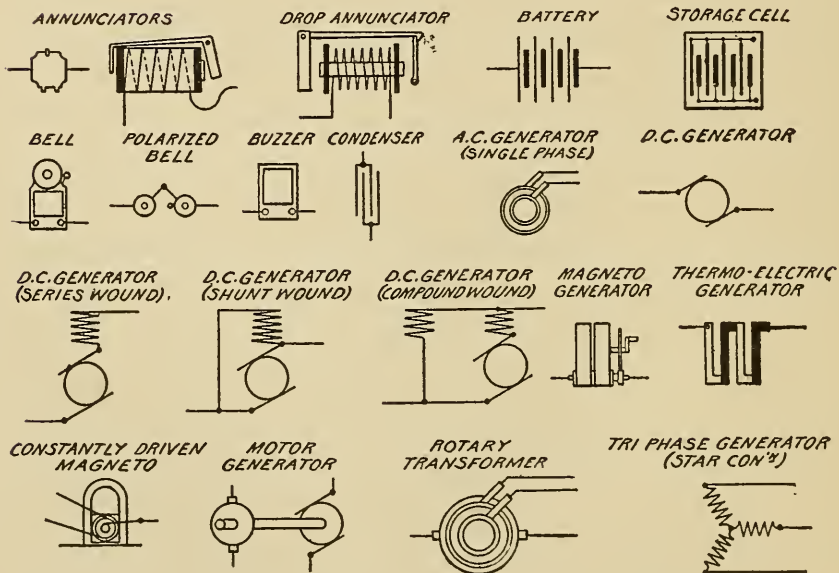
CHART FOR DRAFTSMEN

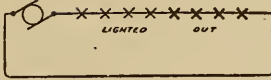
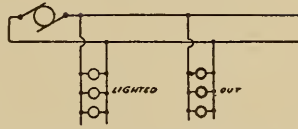


COARSE & FINE FABRIC



ELECTRICAL SYMBOLS



ELECTRICAL SYMBOLSTRIPHASE GENERATOR
(TRIANGULAR CONNECTION)AMP CIRCUIT
(ARC)LAMP CIRCUIT
(INCANDESCENT)

ARC LAMP

INCANDESCENT
LAMP

METER



AMMETER



GALVANOMETER



VOLTMETER



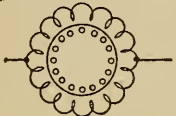
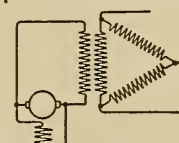
WATTMETER



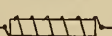
MOTOR



D.C. MOTOR

D.C. MOTOR
(SERIES WOUND)D.C. MOTOR
(SHUNT WOUND)INDUCTION MOTOR
(SQUIRREL CAGE ARMATURE)INDUCTION MOTOR
(Y WINDING)INDUCTION MOTOR
(DELTA WINDING)MOTOR OR GENERATOR
(THREE PHASE SYNCHRONOUS, WITH EXCITER)

RESISTANCE

INDUCTIVE
RESISTANCEVARIABLE
RESISTANCEINDUCTIVE RESISTANCE
(ADJUSTABLE CORE)INDUCTIVE RESISTANCE
(ADJUSTABLE COIL)NON INDUCTIVE
RESISTANCE

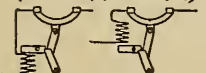
RHEOSTAT



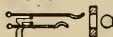
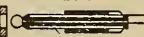
SOLENOID



SWITCH

KNIFE
SWITCHDOUBLE POLE
SWITCHPOLE
CHANGERCIRCUIT BREAKERS
(OVERLOAD) (UNDERLOAD)

SPRING JACK

SWITCH
PLUG

FUSE

LIGHTENING
ARRESTERTELEGRAPH
KEYRELAY OR
SOUNDER

RELAY

DIFFERENTIAL
RELAY

COHERER

POLARIZED
RELAY

GROUND

TELEPHONE
HOOK

TRANSMITTERS



RECEIVERS

LISTENING OR
RINGING KEYS

TRANSFORMER

CROSSING
WIRESJOINED
WIRES

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz 1234567890

paid, the receipt of which is hereby acknowledged, I, the said
, have sold, assigned, and transferred, and by these presents
 do sell, assign, and transfer, unto the said the full
 and exclusive right to the said invention, as fully set forth and
 described in the specification prepared and executed by me on the
 day of, 19.., preparatory to obtaining letters patent
 of the United States therefor; and I do hereby authorize and request
 the Commissioner of Patents to issue the said letters patent to the
 said as the assignee of my entire right, title, and
 interest in and to the same, for the sole use and behoof of the said
 and his legal representatives.

In testimony whereof I have hereunto set my hand and fixed
 my seal this day of, 19...

..... [SEAL.]

In presence of

.....

.....

(If assignment, grant, or conveyance be acknowledged as provided for by Rule
 197, the certificate will be *prima facie* evidence of the execution of such assignment,
 grant, or conveyance.)

39. OF THE ENTIRE INTEREST IN LETTERS PATENT

Whereas I,, of, county of, State
 of, did obtain letters patent of the United States for an
 improvement in, which letters patent are numbered,
 and bear date the day of, in the year 19..; and
 whereas I am now the sole owner of said patent and of all rights
 under the same; and whereas, of, county
 of, and State of, is desirous of acquiring the entire
 interest in the same:

Now, therefore, to all whom it may concern, be it known that,
 for and in consideration of the sum of dollars to me in hand
 paid, the receipt of which is hereby acknowledged, I, the said
, have sold, assigned, and transferred, and by these presents
 do sell, assign and transfer unto the said the whole
 right, title, and interest in and to the said improvement in
 and in and to the letters patent therefor aforesaid; the same to be
 held and enjoyed by the said, for his own use and
 behoof, and for the use and behoof of his legal representatives, to
 the full end of the term for which said letters patent are or may be
 granted, as fully and entirely as the same would have been held
 and enjoyed by me had this assignment and sale not been made.

In testimony whereof I have hereunto set my hand and affixed my seal at, in the county of, and State of, this day of, 19...

. [SEAL.]

In presence of

.
.

40. OF AN UNDIVIDED INTEREST IN LETTERS PATENT

Whereas I,, of, county of, State of, did obtain letters patent of the United States for an improvement in, which letters patent are numbered, and bear date the day of, in the year; and whereas, of, county of, State of, is desirous of acquiring an interest in the same:

Now, therefore, to all whom it may concern, be it known that, for and in consideration of the sum of dollars to me in hand paid, the receipt of which is hereby acknowledged, I, the said, have sold, assigned, and transferred, and by these presents do sell, assign, and transfer unto the said the undivided one-half part of the whole right, title, and interest in and to the said invention and in and to the letters patent therefor aforesaid; the said undivided one-half part to be held and enjoyed by the said, for his own use and behoof, and for the use and behoof of his legal representatives, to the full end of the term for which said letters patent are or may be granted, as fully and entirely as the same would have been held and enjoyed by me had this assignment and sale not been made.

In testimony whereof I have hereunto set my hand and affixed my seal at, in the county of, and State of, this day of, 19...

. [SEAL.]

In presence of

.
.

41. TERRITORIAL INTEREST AFTER GRANT OF PATENT

Whereas I,, of, county of, State of, did obtain letters patent of the United States for improvement in, which letters patent are numbered and bear date the day of in the year 19..; and whereas I am now the sole owner of the said patent and of all rights

under the same in the below-recited territory; and whereas
, of, county of, State of, is desirous
 of acquiring an interest in the same:

Now, therefore, to all whom it may concern, be it known that,
 for and in consideration of the sum of dollars to me in hand
 paid, the receipt of which is hereby acknowledged, I, the said
, have sold, assigned, and transferred, and by these presents
 do sell, assign, and transfer unto the said all the
 right, title, and interest in and to the said invention, as secured
 to me by said letters patent, for, to, and in the State of,
 and for, to, or in no other place or places; the same to be held and
 enjoyed by the said within and throughout the
 above-specified territory, but not elsewhere, for his own use and
 behoof, and for the use and behoof of his legal representatives, to
 the full end of the term for which said letters patent are or may be
 granted, as fully and entirely as the same would have been held
 and enjoyed by me had this assignment and sale not been made.

In testimony whereof I have hereunto set my hand and affixed
 my seal at, in the county of, and State of,
 this day of, 19...

..... [SEAL.]

In presence of

.....

42. LICENSE — SHOP-RIGHT

In consideration of the sum of dollars, to be paid by the
 firm of, of, in the county of, State of
, I do hereby license and empower the said to
 manufacture in said (or other place agreed upon) the im-
 provement in, for which letters patent of the United
 States No. were granted to me the day of, in
 the year 19.., and to sell the machines so manufactured throughout
 the United States to the full end of the term for which said letters
 patent are granted.

Signed at, in the county of and State of,
 this day of, 19...

.....

In presence of

.....

43. LICENSE — NOT EXCLUSIVE — WITH ROYALTY

This agreement, made this day of, 19.., between of, in the county of and State of, party of the first part, and of, in the county of and State of, party of the second part, witnesseth, that whereas letters patent of the United States No., for improvement in, were granted to the party of the first part on the day of, 19..; and whereas the party of the second part is desirous of manufacturing containing said patented improvements: Now, therefore, the parties have agreed as follows:

I. The party of the first part hereby licenses and empowers the party of the second part to manufacture, subject to the conditions hereinafter named, at their factory in, and in no other place or places, to the end of the term for which said letters patent were granted, containing the patented improvements, and to sell the same within the United States.

II. The party of the second part agrees to make full and true returns to the party of the first part, under oath, upon the first days of

CANADIAN ASSIGNMENTS

FROM CANADIAN "PATENTED INVENTIONS"

FORM 18. OF AN ENTIRE INTEREST (OR AN UNDIVIDED ONE-HALF INTEREST) IN AN INVENTION BEFORE THE ISSUE OF PATENT

In consideration of one dollar, to me paid by Solomon Lang of the City of Montreal, I do hereby sell and assign to the said Solomon Lang all (or an undivided half of all) my right, title and interest in and to my invention for new and useful improvements in planing machines, as fully set forth and described in the specification which I have signed preparatory to obtaining a patent, and I do hereby authorize and request the Commissioner of Patents to issue the said patent to the said Solomon Lang (or jointly to myself and the said Solomon Lang) in accordance with this assignment.

Witness my hand and seal this first day of September, 1903, at the City of Montreal.

THOMAS LORD [L.S.]

FORM 19. OF AN ENTIRE INTEREST IN A PATENT

In consideration of five hundred dollars, to me paid by Daniel Mullin, of the City of Montreal, in the Province of Quebec, I do

hereby sell and assign to the said Daniel Mullin all my right, title and interest in and to the Patent of Canada, No. 23,460, for an improvement in locomotive head lights, granted to me July 30, 1902, the same to be held by and enjoyed by the said Daniel Mullin to the full end of the term for which said Patent is granted, as fully and entirely as the same could have been held and enjoyed by me if this assignment and sale had not been made.

Witness my hand and seal this first day of September, 1903, at Montreal, Province of Quebec.

HORACE KIMBALL [L.S.]

PATENT AGREEMENT WITH EMPLOYEE

BETWEEN

.....

.....

AND

WHOSE POST-OFFICE ADDRESS IS

.....

In consideration of my employment and the salary paid to me by, I hereby agree; that

All inventions and discoveries which I make while in the employ of said Company, constituting improvements in its then existing products, shall become its exclusive property; that,

I will, immediately upon the conception of any and all such inventions and discoveries, disclose the same to said Company; that

Without further compensation — except such as said Company deems fit and proper in the premises after Letters Patent have been obtained and the said invention or discovery proven to be of value to it I will, at the instance of said Company, do all acts, sign and execute all applications and other papers necessary and incident to obtaining and maintaining in force Letters Patent for any and all such inventions and discoveries, both in the United States and countries foreign thereto; and, that

I will sign and execute all papers necessary to transfer to and vest in said Company my entire right, title and interest in and to said inventions, discoveries and applications, and in and to any and all Letters Patent obtained or to be obtained therefor, and will authorize the Commissioner of Patents to issue such patents to, Company as assignee thereof.

The expenses incident to said inventions, discoveries, applications, Letters Patent and transfers are to be borne by said Company.

(Sign here).....

Witnesses: .

..... Signed at.....

..... 19..

Accepted....., 19...

(Name of Company)

per.....

Brennan's Handbook.

EMPLOYEE'S PATENT AGREEMENT

The undersigned in consideration of his employment by, and in further consideration of the salary received by him for such employment, hereby agrees that all inventions and discoveries pertaining to the business of said Company, which may be made by him while in its employ shall become the property of said Company, and that he will assign to said Company all applications made by him for Letters Patent of the United States and elsewhere, and all Letters Patent that may be granted to him, covering such inventions and discoveries, without further compensation; that he will promptly on conception of any patentable idea or invention, disclose the same to said Company, and on its request so to do will make application for Letters Patent covering such discoveries; and that he will execute all other papers whatsoever that may be necessary to transfer to and vest in said Company all the right, title and interest in and to such inventions and discoveries, it being understood and agreed that all expense incident to the securing of any Letters Patent or applications for patent shall be borne by said Company.

....., 19...

Brennan's Handbook.

PATENT CLAUSES

Customers frequently take the position that machinery or devices may be subject to patent litigation involving them in a suit or suits, and insist on a protecting clause in the contract, by which

the seller agrees to save the customer harmless against damages resulting from the customer's use of the patented article. In agreeing to such an arrangement care should be exercised in its wording, so that the seller may reserve to himself the conducting of the suits, and covering which the following is a suggested clause:

"We hereby agree to indemnify and save you harmless from and under any and all claims or suits for damages for infringement of any Letters Patent claimed by any person or persons relating to any part or portion of this machinery, provided you give us prompt and sufficient notice of said claim or suit and such information, assistance and power of attorney as may be necessary to answer to and defend such suits."

Brennan's Handbook.

OPTION (FOR PATENT APPLIED FOR OR PATENT GRANTED).

(Options are frequently secured on related inventions before marketing the invention in question. It is customary for some manufacturers to secure options on patents which may restrict or re-enforce the invention in question.)

Form:

KNOW ALL MEN BY THESE PRESENTS, that I (seller) of (residence) for and in consideration of \$1.00 and other good and valuable considerations, the receipt of which I do hereby acknowledge, paid by (buyer) of (residence), do hereby sell, grant, and convey to said (buyer), for the period ending (date option is to expire) after the date hereof, an exclusive option entitling said (buyer) to purchase from me all the right, title, and interest in and to an invention for (description) more particularly described by me in an application for United States Letters Patent therefor, filed by me on the day of, No. (or to United States Letters Patent No. issued to me on day of).

And I do hereby agree upon the payment to me of \$. . . . (purchase price agreed upon) by the said (buyer) on or before (the date when option is to expire), to execute a valid and binding assignment to the said (buyer) of all the right, title, and interest in and to the said invention and to the United States Letters Patent to be obtained therefor (or to the said Patent), and do any and all things necessary to fully vest title in and to the same in the said (buyer).

Signed (seller)

Date (of execution)

Witness:

Thomson on Patents.

PATENTS ISSUED IN LEADING COUNTRIES OF
THE WORLD *†

	To 1870 inclusive	1870 to 1911	Total
United States.....	120,573	1,002,478	1,123,051
France.....	103,934	336,964	440,898
Great Britain.....	53,044	371,966	425,374
Germany.....	9,996	238,110	248,106
Belgium.....	35,044	202,456	237,500
Canada.....	4,081	129,609	133,690
Italy and Sardinia.....	4,723	94,175	98,898
Austria.....	None	64,793	64,793
Switzerland.....	None	50,197	50,197
Spain.....	None	44,987	44,987
Sweden.....	1,269	31,734	33,363
Russia.....	1,464	23,528	24,992

* Elec. World.

† 37,731 patents were granted in the U. S. in 1912, and 35,788 U. S. patents were issued in 1913.

*A Selected List of Books Which will be Useful to Readers Who
Wish Further Details on the Subjects Treated in
This Volume*

American School of Correspondence: Law of Patents: Instruction Paper. 1912.

Banning, H. A., and Arden, H.: Reports of Patent Causes.

Cooper: Financing an Enterprise.

Cresce, F. A.: Practical Pointers for Patentees. 1902, 1912.

Edelman, P. E.: "Experiments" contains—Steps required in a marketable invention; Examination of patents; Principles of invention and research; Model making; Organization of Industrial Research Dept., and similar information. \$1.50. 1914.

Fairweather, W. C.: Foreign and Colonial Patent Laws. 1911.

French: Engineering Drawing. (Includes sketching and notes on patent drawings.)

Grimshaw, R.: Hints to Inventors.

Hart, A. W.: Digest of Patent Decisions. 1899.

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1912. (Doc. 555, 62 Cong. session.)
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Subclasses of Subjects of Invention in the United States Patent
Office, in numerical order.
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